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PROLAPSUS OF THE SIGMOID FLEXURE AND ITS RESULTS, CONSTIPATION, INDIGESTION, AUTOINFECTION, NEURASTHENIA AND DISPLACEMENT OF THE UTERUS AND APPENDAGES.*

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The sigmoid flexure of the colon is an extension or rather the communicating link between the descending colon and the rectum. It begins in the left iliac fossa, slightly below the crest of the ilium, terminating a little beyond the left sacro iliac symphysis. In the first part of its course it is upwards then downwards, uniting with the rectum. It is held in its place by loose folds of peritoneum, the sigmoid meso colon. Its lumen is less than that of the colon, growing less as it approaches the rectum. Its structure is similar to that of the other large intestines, with the exception that the longitudinal fibers are not so abundant and strong. This is the anatomical description given by Gray, leaving the impression that it is never in the pelvic cavity, but Treves, Jonnesco and Bobier differ and state emphatically that it belongs to the pelvic cavity, Bobier differing slightly by stating that when the sigmoid is inflated it rises above the pelvic cavity. This might apply to gaseous inflation but could not be in fecal impaction. In an examination of many hundred cases both in my private practice and clinic at the University Medical College, Kansas City, Mo., I have always been able to outline it across the roof of the pelvis. If distended with fecal matter sufficient to come under the head of a prolapsed sigmoid I always find it pressing heavily down in Douglass's cul de sac in females to a greater or less degree dependent on the length of time of the existence of the prolapsus; in males pressing down from three to four inches. If Gray be correct technically in the normal position of this gut it is certainly subject to many variations of positions caused by functional disturbances or rather, the result of neglect on the part of the individual or the result of an elongated meso-colon. Its length is about 16 2-3 or 17 1-2 inches. Normally its relations to the rectum would allow its

*Read at the Annual Meeting, Jefferson City, May, 1906.

contents to pass easily into this gut, but when prolapsed the lumen at the connecting point with the rectum is lessened with a slight upward turn of the connection. In many cases there is an invagination into the rectum several inches, which often produces complete obstruction in the passage of fecal matter, resulting in fecal impaction. My attention was first called to the possibility of prolapsus of the sigmoid in 1885 when a married lady, age 40, presented herself to me for examination and treatment. Family history most excellent. No tendency to dyscrasial conditions or neuropathic diathesis. She was married at 20 years gave birth to a child two years later. Two years later gave birth to another. Both delivered normally without injury to soft parts; no untoward sequelae; never was pregnant again; health perfect until about 30 years old. She had been slightly constipated from girlhood, monthly functions always normal. At about 30 years she became gradually constipated which increased until she had to take violent purgatives and enemata to move them. She was extremely nervous suffering from neurotic indigestion, the result of reflex irritation; greatly emaciated, complexion sallow, pulse 84 and slightly necrotic. Never had rheumatism, kidneys normal except as affected by indigestion. The burden of her conversation was constipation and the loss of power to assist the bowels to act and that the fecal matter was scybalous, very small balls and covered with mucus. She felt and believed that there was a permanent obstruction of some kind to the passage from her bowels. Practically she had consulted the medical profession of the United States. I made examination of the vagina, found the uterus greatly prolapsed and Douglass's cul de sac obliterated by being pressed downward at the same time feeling a large hard tumor between my finger and the sacrum, ovaries displaced downwards. Made a digital examination of the rectum and although she had not had an action from the bowels for the last seventy-five hours, I found the rectum free of fecal matter. Only three or four scybala not larger than a marble. Reaching for the roof of the pelvis my finger distinctly outlined the thin wall of the sigmoid greatly distended with fecal matter which was easily recognized by the spaces between the lumps. I carefully measured its diameter and am sure of its being three to three and one-half inches. To more fully assure myself of what to me was a new condition I placed the patient under the influence of chloroform and proceeded with a long large bivalve sigmoid speculum to dilate the rectum then with electric light looked for the union of the rectum to the sigmoid flexure. This I failed to find until I used vulsellum and pulled it down within the field when I could distinctly see the point of fecal matter at the union. I then inserted a uterine probe into the fecal matter to a distance of three or four inches. This demonstrated that it was a fecal impaction in the sigmoid flexure. While using the probe I found that the mass was

movable and not adherent. A point that I utilized afterwards was elevating the hips and getting the benefits of gravity when the weight of the fecal tumor would pull the gut out straight, and enable me to get the largest benefit from enemas. From this time forward I made it a fixed rule both in private and clinic practice of examining every case of constipation per rectum, that has come under my observation, a report of which I made in 1899 in an essay read before Clay County Medical Society and have continued the record until now, when I do not hesitate to say that seventy-five per cent of all so-called cases of constipation depend wholly on more or less prolapsus of the sigmoid flexure. The importance of a knowledge of this displacement to the general practitioner and surgeon cannot be overestimated when its results are recognized as will be shown by report of cases that neurotic functional disease of the stomach is produced by reflex irritation. Indeed, in my opinion, all cases of auto-infection occurring in the alimentary canal, excluding toxins, are dependent upon prolapsus of the sigmoid. In fact there is no other place in the intestinal tract where fecal matter is detained long enough for resorption. Again referring to first case I mention, the lady was suffering from interopsia and possibly gastropsia. When the patient was lying on her right side the descending colon was lying along the spinal column, as indicated by percussion. The space of its normal position was dull on percussion. The left kidney was displaced and its position could be felt inside a line drawn from the crest of the ilium to the second floating rib, which I suppose resulted from the constant weight attached to the meso-nephron. I have seen two other cases of displaced left kidney from same cause. (I suggest that the only possible cause to displace the left kidney is extreme prolapsus of the sigmoid, except those that are congenital). All of these cases after existing for a time are followed by characteristic discharge of scybala, usually covered with mucus. When the gut is entirely emptied it is always followed by a large discharge of mucus often mixed with pus which indicates ulceration. This inflammatory process may extend up the descending colon or down into the rectum producing chronic dysentery. Eccles of Manchester, England, in his classic work on the interopsia and gastropsia mentions a number of cases of cancer of the sigmoid which he attributes to continued irritation resulting from prolapsus. I have seen two cases of cancer of the sigmoid which I have reason to believe had their origin in a like manner. Displacement of the uterus and its appendages and inflammatory adhesions and possibly degenerative changes of the ovaries may be the result of a continued close contact of a fecal mass in a greatly attenuated bowel. Kelley in his classic work on gynaecology mentions this contact as highly dangerous, but gives no explanation; nor does he suggest the only possible explanation, the prolapsus of the sigmoid. Last year I was called to see a maiden

lady, aged 35, family history good who had enjoyed excellent health except from great constipation from childhood, until she was twenty or twenty-five years old, after which she suffered with great constipation, requiring violent purgatives and enemas to move her bowels. Neurotic indigestion, changing variety every few weeks: Neurasthenia, emaciated with loss of strength, auto-infection, etc. During this time she was under the charge of different physicians. Finally she passed into the hands of an accomplished gynaecologist who diagnosed prolapsus uteri with displaced ovaries and recommended retro-fixation uteri. The operation was done scientifically. The operator told the patient that the uterus was slightly subnormal. The ovaries not enough affected to demand treatment, and promised the patient a safe and speedy recovery, which he was justified in doing as he had no knowledge of the real cause of the prolapsus, hence could not suggest after treatment. When I visited the case I found the patient bed-ridden, emaciated, digestion and assimilation bad, skin sallow. On a digital examination per vagina I found the uterus within an inch of the vulva and parenchymatous metritis. On examination of the rectum I found an extreme prolapsus of the sigmoid with a slight invagination into the rectum. This to me was an intensely interesting case, highly instructive to both the general practitioner and gynaecologist. It is clear to my mind and doubtless to yours had the gynaecologist recognized the real cause of the prolapsus and applied appropriate treatment as will be given later, this lady would have made a perfect recovery and been of great value to society, but this was not done and she is practically an invalid for life. This and many other cases suggest to me the possibility of prolapsus of the sigmoid being the cause of many displacements and diseases of the uterus. If I am correct in this assumption it will go far to explain the failure of success of much of pelvic surgery. Indeed I can call to my mind as many as ten cases that a want of knowledge of the gynaecologist on this subject has resulted in lamentable failures. I am indebted to Eccles for the description of the two varieties of prolapsus sigmoid, the invaginated and the simple. I had not recognized the invaginated until I read his splendid work on interopsia gastropsia, published in 1900. The invaginated is where the sigmoid passes down into the rectum one to three inches. Where the invagination is an inch or less it rarely produces complete obstruction. However it may. When it does it is at once a surgical case and should be operated on without delay. To illustrate: Eighteen months ago I was called to see a case of this kind who had been suffering from obstruction for a week. Peritonitis had existed for three or four days. I easily diagnosed the case but the patient was too far gone for an operation and died in several hours. In this connection I desire to say that the invaginated variety never under my observation gets well nor is the invagination

ever reduced, but by continuous treatment they can be kept comfortable and live to old age. Its existence is a continued menace to life because of the possibility of its suddenly passing to complete obstruction. Here I desire to appeal to our progressive surgery to formulate an operation to meet this condition, which in my opinion could be done. In the simple variety the danger to life is never acute unless peritonitis is brought on by violent purgatives. Either of the varieties may result in inflammatory process leading up to adhesions, which render them practically, not permanently, curable. This adhesion can be diagnosed either digitally or by the use of a sigmoid speculum and the forcing of a metal catheter through the fecal matter into the sigmoid. I use a piece of steel shaped like a catheter but much longer for this purpose. The forces prominent in bringing about this condition are, first the accumulation of fecal matter in this gut by accretion. Second, an elongated mesentery. Again all fecal accumulations in the intestinal tract excluding those of seeds and medicines in the cecum have their origin in prolapsus of the sigmoid and nowhere else. All the fecal obstructions I have seen have their origin as stated above. Symptoms: The passage of scybala, empty rectum 48 hours after action of bowels, dullness of percussion in the lower hypogastric region. By digital examination we feel the distended sigmoid full of fecal matter which we easily recognize by the thinness of the gut, lying against Douglass's cul de sac in females often obliterating it, or across the pelvis in males. The duration of the displacement may be approximated by its position in the pelvis because it is progressive to a point the amount of auto-infection, reflex indigestion, emaciation and anemia of the nerve centers. It occurs most frequently between the ages of 25 and 50; oftener in females than males. Eccles reports a case at eleven years old which he thought had existed several years before. I have seen one five years old; several between ten and twenty. In my opinion there is no where in medicine that we can get more brilliant results than the prevention and treatment of this abnormal condition. Nor is there anywhere in medicine that sadder results follow neglect in diagnosis and treatment than in the condition under consideration. This is particularly true in regard to children. The principles we must recognize to guide us in treatment are as follows: First. A distended gut with loss of tonicity of muscular force of this section of the bowel. Second. The restoration of tonicity to the muscular structure of the bowel which takes a long time. Third. Intestinal tract must be kept disinfected by the use of intestinal germicides given in full doses of glycerine, the germs always being present. The diet should be carefully selected, avoiding carbo-hydrates and saccharine matter. The sigmoid must be unloaded if the bowel is largely distended. This can not be done by purgatives because the muscles around the gut have lost their contractility

and purgatives would spend their force on the muscles of the colon. I never give a purgative stronger than epsom salts or castor oil and not these until I have softened the mass by enemas. Here I enter my protest against the usefulness of the long colon tube for the following reasons: After the point of the tube passes the sphincter muscles the operator does not have further control of it and if it enters the sigmoid it would be by chance, which only occurs once in about fifty cases. Further, suppose I pass the tube directly to the opening of the sigmoid I would have no way of knowing this fact, besides the hardened fecal matter would prevent it from entering the bowel. It can be readily seen if we had an invaginated sigmoid it would be simply impossible to enter the bowel at all with a colon tube. Better to use a sigmoid speculum and an electric light and throw a stream of water directly against the fecal mass. This should be repeated twice a day, each time pushing the rectal tube as far into the sigmoid as possible. By this process in three to six days we can soften the mass so that a full dose of castor oil will entirely clear out the bowel. During this time you will remember that I directed to be given a germicide in full doses of glycerine every four hours. The amount of glycerine given would be far more than would be possibly absorbed and would pass down the intestinal tract reaching the mass which assists in softening, taking with it the fluid that is the result of exosmosis. I make it a rule to repeat hot normal salt solution enemas twice daily and one dose either of castor oil or epsom salts and giving this enema the solution must be thrown well into the sigmoid as hot as the patient can bear it for its stimulating effect upon the relaxed muscular structure. In a week or ten days I reduce the ipecacuhana to once daily and now begin to give internal medicine still farther to excite muscular contraction, at the same time continuing a germicide, using the following drugs: strychnia, or nux vomica, belladonna, ipecac, aloin, acetozone, creosote, ichthyol, guaiacol, and other intestinal germicides, also massage and vibration in various combination.

You observe in this combination that I increase the circulation of the blood in the brain in the shape of a nerve tonic. I vary the enema between solution of proper strength of bi-borate of soda, boracic acid, oil of gaultheria and if there be ulceration I add to the enema for every two quart mixture four ounces of fluid hamamelis and two drams of tincture of hydrastis canadensis. As a hæm-
m-
atic I always use either the glycerophosphates or the hypophosphate, never use the ferruginous preparations. As the disease improves I reduce the number of the enemas from day to day until I feel the tonicity of the muscles has returned. Beginning with the first case that I treated my successes have been brilliant. The time required for the treatment of these cases is from two to six or eight months. The cases in which the sigmoid is invaginated I have

reason to believe never fully recover, and require constant watching to prevent fecal impaction; however, much can be done for them by enemas and the prescription given above supplemented by the use of phosphate of soda given daily. I have explained the impossibility of relying upon the colon tube. The continuous use of the speculum and electric light becomes very tiresome and objectionable to the patient. If the prolapsed sigmoid is not adherent to the structures in the pelvis, a most efficient and successful enema can be given if the patient is required to bend over the railing of the bed allowing the weight of the hips to lie upon the pubes and under no circumstances touch the abdomen. The body should be upon an angle of 45 degrees; the physical results would be the weight of the fecal mass would fall out of the pelvis thereby draw the connection between it and the rectum straight. This would allow the enema to flow into the sigmoid without interruption. I have occasionally compromised with female patients at the suggestion of one of my patients to allow them to lie on an incline plane at an angle of 40 to 50 degrees; however, I don't think the result is quite as good as the previous position. In view of the fact that I stated that the invaginated form is incurable, if it amounted to as much as an inch of protrusion I should certainly recommend an operation. This essay has been drawn entirely from my note book of cases, trying to make it as near clinical as possible. In conclusion I desire to acknowledge my indebtedness to Dr. Eccles of Manchester, England for the valuable facts learned from the book he published on gastropsia and enteropsia.

CHOREA MINOR: A CONSIDERATION OF ITS PATHOGENESIS.*

BY MAX GOLDMAN, M. D., KANSAS CITY, MO.

My apology for presenting a subject of such a nature as chorea is a desire to hear a discussion by the members of this society of those points pertaining to the condition that I shall touch upon in my paper.

It is my purpose to consider only what is termed chorea minor or Sydenham's chorea, which occurs in children of from four years up to and including the age of puberty: Choreiform affections such as of pregnancy as well as others occurring in adult life, will not be permitted to come within the province of this short discourse. Neither shall the writer discuss the symptoms or diagnosis or treatment of the affection.

Choreiform movements are usually described as contractions of groups of muscles, irregular, involuntary, indefinite, spasmodic, not correlated, unilateral or bilateral, and in themselves characteristic.

*Read before the Jackson County Medical Society March 19, 1907.

Any part of the muscular frame, even the muscles of the eye, may be involved in the movements.

It might be of interest in connection with the consideration of choreic movements to mention one or two facts with reference to the physiology of voluntary movements. No attempt will be made to describe here the anatomy of the motor areas of the cortex, motor tracts or other anatomical structures concerned in the creation and actual production of co-ordinated muscular movements. It must be brought to mind, however, that not all physiologists have at present arrived at a definite conclusion in regard to the question of just what anatomical factors are concerned and in what way they are concerned in the mechanism of stimulating or inhibiting voluntary movements; this much is known; that in the cortex cerebri are the centres which are necessary for the reception and interpretation of the various stimuli arriving constantly, during the conscious as well as the unconscious state; which centres are concerned, we have every reason to believe, in that higher function volition, which regulates not only voluntary movements but also mental activities, as well as many of the various so-called automatic acts of the body; but how and by what means a voluntary action originates has not been definitely determined. A distinctive lesion of the motor tract, e. g., the pyramidal tract, will result in a loss of some motor function, i. e., paralysis, although one investigator claims to have produced choreic form movements by destruction of a portion of the internal capsule (Ray.) This I doubt, since I am convinced that had there been a loss of fibres in the tracts, some paralysis would necessarily have resulted.

Now when one remembers that choreiform movements are more or less perversions of normal muscular contraction, one may be at a loss to know whether those movements are due to the loss of some inhibitory influence exerted upon the centres controlling voluntary action, or whether, conversely, they are due to excessive stimulation of the motor centres concerned. The writer is desirous of hearing some discussion on this point.

So much for the general nature of the *movements* of the condition, chorea minor.

Since there exists a great diversity of opinion as to the pathology of chorea it might be well to survey very briefly some of the most important facts bearing upon the etiology: as it will be seen that the etiology of the condition and the lesion, whatever it may be, are very closely associated. Many of the factors in its causation ordinarily spoken of will be omitted intentionally.

It is a matter of some importance, observed clinically, that children that are by nature of what is spoken of as a "nervous" temperament are more susceptible and predisposed to the affection. Moreover, the disease is often preceded by evidence of disturbances in the

general nervous condition of the child, such as would be caused by broken sleep, night terrors, unusual mental strain, etc., etc.

Closely associated with the preceding and very probably a cause thereof, are seen depraved metabolic activities induced in a variety of ways. This is undoubtedly a factor in the development of many cases of chorea; anemia, therefore, especially of the chlorotic type is observed very frequently. According to DaCosta, however, there is no perceptible diminution in the number of erythrocytes and no leucocytosis; at any rate there is not a constant blood change, unless it be due to complications: certain it is that no blood alteration characteristic of the disease has been observed.

It will be seen after carefully studying the factors mentioned by many authorities, as aiding in the causation of chorea that lesions of the heart valves brought about by endocarditis are frequently spoken of as accompaniments of the affection if not effects of the toxic agent causing the chorea. Be that as it may valvular lesions, and pericardial adhesions, are frequently detected, clinically as well as post mortem. It is the opinion of the writer that circulatory disturbances in the blood vessels of the cortex primarily, engorgements that may result from failure of circulatory compensation because of such valvular defects in the heart, or of cardiac impediment on account of pericardial adhesions or inflammations, are factors in the causation; these factors may be predisposing or exciting.

Reflex irritation of the cortical motor area is a cause of chorea: of these the intestinal irritation has been most commonly observed. Overstudy as a predisposing factor has been thought by many to aid in the causation. Fright and other disturbances of emotion, are given by good authorities as agents in the production of this affection. Allan McL. Hamilton speaks of scarlet fever, measles, whooping cough, and diphtheria, having been followed by intractable choreic attacks. In a case of my own, trauma to the head in frontal region of one side appeared distinctly as an exciting cause. This child was an eight year old boy, who was kicked in the right side of the head in a scuffle with a playmate; he lost consciousness for a few minutes and during the rest of the day as well as for two or three days following, seemed to be suffering slightly from the effects of the cerebral concussion. On the fifth day he developed a severe choreic attack which involved nearly all the muscles of the body. He improved shortly after, but was lost from continued observation before he recovered. There was no paralysis in this case, nor any unusual interference in speech. The boy seemed well nourished, but of a high strung nervous temperament; he had never before suffered from chorea.

A very frequent clinical observation is the association with chorea of acute articular polyarthrititis as well as subacute articular rheumatism. Rheumatic manifestations may precede, follow, or, strange as it may seem, alternate with chorea. In regard to this

phase of the subject I wish merely to mention an interesting observation, viz., that chorea rarely, if ever, develops during an attack of acute polyarthritis and never during the stage when the temperature is high, but rather in the subsidence of the acute stage of the disease or in the interval. In reference to this point, C. B. Radcliffe in his excellent article on chorea in Reynold's System of Medicine says: "Certainly there is little reason for connecting chorea with fever." And further, it may be "supposed that the chorea is connected with irritation, not with inflammation,—that is to say, with the state which precedes inflammation always, and which may or may not issue in inflammation. In this way then, the cases which have been given, in which the traces of inflammation are absent after death must be looked upon as cases in which the chorea proved fatal before irritation resulted in inflammation, and the cases in which the signs of inflammation *were* present as cases in which before death irritation had resulted in inflammation."

Rheumatism, or perhaps, I had better say the systemic condition predisposing to rheumatism, is a potent factor in the etiology and development of this affection; this is, perhaps, now the most universally recognized clinical fact in connection with chorea: cardiac defects occupy a clinical relationship to chorea very similar to rheumatism.

A matter which has interested me greatly is the general failure to demonstrate any characteristic lesion of chorea. The lesions which have been held responsible are as varied as the number of pathologists who have worked scientifically along this line; and yet, to quote from Allan McLane Hamilton, "these findings merely show that in *fatal cases* of chorea there are found occasionally textural alterations in the brain and cord, which are inconstant in character." Is it probable that a temporary metabolic disturbance not recognizable post mortem is occasionally responsible for this affection? It would seem so.

The fact that so many cases recover completely would suggest certainly that the cause, whatever it might have been, was permanently removed. Yet it has been the general observation of clinicians that recurrences are comparatively frequent previous to ultimate, complete recovery. In many cases of death of patients with chorea, other serious maladies or pathologic conditions have been found; many of the latter were thought to have been the result of rheumatism, an acute infectious disease. What conclusive evidence have we that the chorea was due only to the brain lesion discovered in these cases? There are some who insist that chorea is the result of the invasion of the cerebrum by the micro-organism of rheumatism but what can be said of those fatal cases of chorea wherein no pathologic lesion could be demonstrated?

I am of the opinion that, given a child of nervous temperament

who has a depraved nutritive tissue activity so that he becomes pre-disposed to the development of nervous derangements or any of the acute infectious diseases; given also in such an individual a condition of cortical cerebral irritation from capillary engorgement and even blood extravasation, and chorea is likely to result. Inasmuch as this affection of children is rather of a transient nature as to duration, and one that as a rule yields more or less readily to treatment, even if it be merely rest; and inasmuch as it is frequently observed at the periods when children are so easily affected by circulatory disturbances, like the convulsions in the congestions of digestive derangements, during neurasthenic states seen about the age of puberty, is it not possible that it is due to such vaso-motor disturbances in the cortex as above referred to? The blood extravasations, if present need not necessarily be attended by inflammation unless it be the simple non-infective type of inflammation resulting in absorption of the perivascular exudate and a return to normal. It is not the intention to oppose the theory of the infectious nature of this disorder. At the same time we are compelled to admit that so far as we know, at present, it cannot be said that all cases are infectious in the ordinary sense of the term. However, it is probable that most cases are toxic in origin. The theory that chorea is rheumatism of the brain as claimed by Poynton and Payne, and Lees of England does not appeal to me; for such competent clinicians as Eichhorst of Zurich, Switzerland, and others observed cases the result of fright in children in whom a rheumatic element could absolutely be ruled out; whilst, as capable a man as Allan McLane Hamilton saw cases in whom reflex intestinal trouble resulted in the disease which disappeared upon the removal of the cause.

While I firmly believe rheumatism to be a factor in the causation, chiefly by means of its concomitant metabolic disturbances, but also by its complications with their evil results, as well as the micrococcus directly invading the cortical motor areas primarily, yet I am of the opinion that by no means all of the cases should be classed as rheumatic. Like Spiller of Philadelphia, I feel that this relationship has been too greatly exaggerated.

In conclusion, we are at the present time forced to admit that the direct cause of chorea in children is not positively known. However, from a study of the nature of this symptom complex and its accompanying disorders, it appears to me that we can safely say that it is induced by some injury, or at least irritation, of a temporary character, to the cells in the motor areas of the cortex cerebri, and possibly some cells in the spinal cord having to do with the control of muscular movements; the above condition is brought about either as a result of the absorption and injurious effect of toxic substances derived from faulty metabolic activities or derangement of nutrition, which may follow some acute infectious diseases, or may be the effect

in other cases of vascular congestion in the cortex from nerve shock, through vaso-motor disturbance or reflex stimulation of cells of the motor area. Granting this, the treatment of the affection would then resolve itself into prophylaxis where this is possible; and, in cases where the attack has already developed, the judicious employment of mental and physical rest and quiet, in addition to well selected re-constructives to establish normal glandular activity; thus improving blood circulation and removing altered arterial pressure; at all times it is well to study minutely the most probable cause in each individual case. Lastly, chorea is not a neurosis pure and simple, although so far as present indications show no destruction of nerve tissue at ends the disease.

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THE IMPORTANCE OF POST-OPERATIVE TREATMENT IN DISEASES OF THE RECTUM.*

BY W. H. STAUFFER, M. D., ST. LOUIS.

Every few years the profession is treated to some new operation in surgery, the presentation of some much wanted instrument, or the modification of some operation or instrument. This custom has become so prevalent of late that the profession looks with suspicion on all such until an honest demonstration is made. It is not my purpose to criticise the operator or the operation, but to insist, in as forcible a manner as possible, that he complete his work, generally well begun, first, for the future welfare of his patient, and next for the sake of his own reputation.

In scanning the pages of many of our excellent text books and journals, one is impressed with the large space taken up in discussing the symptoms, etiology, pathology, and many artistic, rather than useful, illustrations intended to assist the operator in his technique, while the future treatment is dismissed with a few sentences, if indeed it be mentioned at all. Following any surgical procedure, there are many remote diseases occurring with sufficient frequency to keep a thoughtful surgeon on the lookout for unforeseen complications for days and weeks, or until the patient's convalescence is at an end. Good assistants and well trained nurses are not always unmixed blessings, however useful and ornamental they may be in the sick-room. Our responsibility, for lack of proper attention, should not be shifted to subordinates. If a man is too busy to give his work the attention it deserves, there are others who may not be so skillful but are often more conscientious, who are perfectly willing, yes, waiting, for patients with patience.

The advent of the well-nigh universal use of local anesthetics for surgical operations is largely responsible for incomplete and bung-

*Read at the Annual Meeting, Jefferson City, May, 1906.

ling work. Because rectal surgery is classed in the field of minor surgery, does not make it less important. The percentage of imperfect results or deaths is higher in minor surgery than in pelvic gall-bladder, or stomach surgery. The mortality resulting from whooping cough and measles was higher last year than the combined mortality of diphtheria and scarlet fever. Who of us does not do better work when our patients are very sick, or a surgical operation requiring our best effort confronts us. The pain and discomfort resulting from an ulcer or fissure of the rectum is often out of all proportion to the size of the lesion, and not infrequently unfits the unfortunate victim for mental and physical usefulness.

There is no doubt that many surgeons are doing minor surgery in their offices. Nothing can be said if the office is as well equipped for the purpose as a modern operating room in a hospital except that the patient will always be subject to the dangers of a transportation to his home. If these dangers are of minor importance, there can be but little objection. Still, for all but certain specialties the practice is not to be recommended. I think that such operations as curettement, or the ablation of internal hemorrhoids, or the dilatation of urethral strictures should be done under anesthesia and in a hospital, and neither at the home of a patient nor at the surgeon's office. The dangers and accidents which may follow an anesthesia, either local or general should not be incurred except in a hospital.

Another reason for condemning office operations is the fact that the failure or success of office operations will depend upon the preparation previous to the operation which is always necessary, and this can be given much more conveniently in a hospital than elsewhere.

Another weighty argument against office operation is that we never know exactly what patients will suffer from shock after minor operations, but we do know that the treatment of this condition can become very protracted and may require the most painstaking attention, severely taxing the trained attendants of a well equipped hospital in some cases. Therefore, I cannot advise the office treatment of minor surgical cases. In other words, I do not favor the performance of operations requiring anesthetics in the office. The future treatment and the change of dressings, in which anesthesia is not required, may be done in a well furnished office, although even for this purpose the dressing room of a hospital is the safest and most preferable place.

The post-operative treatment depends, first, on the nature of the pathological condition, and, second, the operation selected for the relief or cure of the same. In a general way it may be said that in the choice of operative interference to be selected, that operation is the best which sacrifices the least tissue, is least painful and does not impair function. Any undue violations, or injury to tissue involved in

any operation invites infection, which is only another term for inflammation.

The so-called ambulant treatment of diseases of the rectum is wrong in principle, as it violates the first law of nature in the restoration of any diseased or injured organ, namely, complete rest of the part, so that nature may do her duty in the shortest possible time.

Any one who knows his anatomy can perform a colotomy, but it requires patience and some mechanical ingenuity to secure a serviceable artificial anus, and the comfort of the patient depends more on the latter than on the former. How often do we hear patients say that they would much prefer death to the condition of some one they know who had consented to a colotomy; still, as you know, there are few, if any, operative procedures which promise so much relief, if properly executed.

The cause of ulceration is undoubtedly microbic. Both Dr. Klein and Prof. Sims Woodhead have made a most thorough investigation of the discharge from the ulcerated surface and also of portions of diseased tissues, with a view to the determination of the cause of this disease. These investigations have not led to the discovery of any specific bacillus other than the bacillus coli communis, so that it is possible that this organism may under certain altered conditions of soil be capable of producing the disease in question. The exact nature of the exciting cause is still in doubt, but that the predisposing cause is an unhealed wound the histories of my cases clearly indicate. These records with few exceptions show that ulceration only supervened in the operation wounds of patients who had been allowed either to leave the hospital or to go about before complete cicatrization had occurred, and I have never personally met with an exception to this rule. I would strongly urge, therefore, that patients who have undergone rectal operations should not be discharged until their wounds have completely healed. It is true that partially healed wounds in the majority of rectal cases proceed to complete cicatrization after the patient has been discharged, but the risk of infective ulceration supervening is sufficient to justify keeping such patient in bed until the wounds are soundly healed. A week or two longer in the hospital is to my mind much preferable to the risk of contracting a disease which may take years to cure and invariably gives rise to sequelae that decidedly tend to make the patient's life miserable, at least for a time, and in some cases to shorten it.

Any operation on the rectum resulting in cicatricial tissue, predisposes to ulceration, as the nutrition of the parts is thereby involved.

The so-called hypodermatic method of treatment of hemorrhoids is another prolific cause of ulceration. It is a recognized fact that cicatricial tissue in the cervix uteri predisposes the parts to ulceration, making the location a good one for carcinoma. W. J. Mayo, in a recent article on cancer of the stomach, has this to say: "Especially

must we be suspicious if in the history there are symptoms of old or recent ulceration. In our 39 cases, 56% showed direct evidence of carcinoma developed on ulcer." Graham showed a clinical history of ulcer in over 50% of the cases of gastric carcinoma which have come under his observation, although years may have elapsed between the two diseased processes.

J. B. Murphy gives it as his opinion that the majority of cases of cancer of the stomach will show precancerous symptoms of ulceration. If these conditions existing in the stomach and cervix uteri predispose to malignancy, why would not similar conditions; so frequently found in the rectum, be responsible for like results. When we consider the fact that over 80% of malignant growths occurring in the intestines are located about the rectum and anus, and our inability to treat cancer satisfactorily in most cases, a new significance is placed on the importance of treating conditions predisposing to this sad ending.

This question cannot be settled by post-mortem evidence. For instance, suppose we were told that the post-mortem examination of one thousand women who had died of cancer of the cervix uteri did not show a single one who had cervical laceration, would not the query at once arise, how entirely impossible it would be for the most skillful pathologist to determine from the specimens in question whether there had ever been laceration.

Is this not equally true of cancer of the rectum? Before the patient dies, all traces of the ulcer would be lost in the gross extent of the disease.

Prevention of disease and pain should ever be our aim, and if operative interference is indicated, let us do our work wisely and well.

Humboldt Building.

LESSONS TO BE DRAWN FROM FORTY-THREE RECENT OPERATIONS ON THE STOMACH.

BY WILLARD BARTLETT, M. D., ST. LOUIS, MO.

The result of modern operative work on the stomach serves, possibly, as the best example of the striking progress made by surgical therapeutics in the past few years. However statistics founded on gastric operations performed more than three years ago, when the technique was but partially developed, are of comparatively so little value, that I lay especial emphasis on the fact of these remarks being confined to the results attained in forty-three consecutive operations performed in the recent past.

Fifteen of these were for cancer of the stomach and twenty-three for gastric ulcer. Gastro-enterostomy was done twenty-seven times and seven resections of the organ were made. In three cases there was cancer so extensive that I had to content myself with a simple exploration, while in two others, having perforated gastric ulcers to deal with, I resorted to drainage alone, the condition of these patients being too critical to warrant anything further. There were two atonic dilatations for the correction of which gastropexy was undertaken. In one patient, suffering from perigastritis, the organ was so deformed and the pylorus so bound down with old adhesions that I did a gastro-enterostomy for drainage; in one instance drainage of the gall bladder into the stomach was instituted, for the relief of jaundice, due to complete obstruction of the common duct by cancer of the head of the pancreas. The forty-third operation was done for gastric hemorrhage due to a gunshot wound of the abdomen. Here the work consisted in ligating bleeding vessels at the minor curvature.

Only four of these patients in whom a stomach operation was undertaken for the relief of gastric conditions, died in the hospital from any causes whatsoever. One of them, seventeen days after gastro-enterostomy, died from vicious-circle while another succumbed to acute bronchitis six days after a resection, free from abdominal symptoms and taking plenty of fluids. A third was also free from abdominal symptoms and taking nourishment three days after a gastrectomy, when he expired suddenly as a result of pulmonary embolism. Too long an operation resulted in the death of the fourth patient; the procedure took an hour and a half, during which time I removed the patient's gall bladder after having made a suture gastro-enterostomy for cancer. In view of this single experience we now give the most serious consideration to the prevention of post-operative shock by using the minimum quantity of ether as well as by finishing the various types of operation within the following period, viz.: button gastro-enterostomy fifteen to twenty minutes, suture

gastro-enterostomy thirty to forty minutes, gastrectomy forty-five to sixty minutes.

It will be seen from the above that we lost only one patient in direct consequence of the forty-three operations, and in order to show that this work, viewed from any standpoint, is becoming safer with increasing experience, I will state that we have not lost a single gastro-enterostomy or resection patient since November, 1905, nearly a year and a half ago.

Many cases are alike in all particulars, hence there is no object for my including all the details of every case. I believe that more can be accomplished by giving particular prominence to rare or especially interesting manifestations of a few, which may prove to be unusual. This, as above stated, is a virgin field, and every uncommon observation is of value, as a large number of them, taken from various operators, must finally go together to make up the sum-total of our knowledge on the subject.

The danger of post-operative hemorrhage is strikingly illustrated in the following case:

Mrs. C., a resident of St. Louis, 41 years of age, born in Alabama, housewife, married; had been a sufferer from indigestion for twenty years. I will not go further into the history than to state that it was impossible for the most careful physical and chemical examination to make an absolute diagnosis between ulcer of the duodenum and disease of the biliary passage. However, on March 27th, 1906, her abdomen was opened: just below the pylorus, on the upper surface of the duodenum was found a thick scar, about the size of a nickel. The pylorus was narrow, the stomach dilated and hung low. I did a posterior suture gastro-enterostomy, after the new method of Wm. J. Mayo, published in the *Annals of Surgery* of April, that year, and got the patient back to bed in first-class condition. About four hours after the operation, she commenced, slowly, to collapse, and grew gradually worse, until the evening of the same day, when her pulse had reached 150 and was so small that it could hardly be counted; her respiration was labored; temperature slightly elevated, and she seemed in a desperate condition. Percussion revealed the stomach distended, until it reached from above the umbilicus to the pubis. Through the tube I washed almost half a gallon of dark, bloody fluid out when she seemed greatly relieved, and her condition improved somewhat. The next morning, about a quart more of the same kind of fluid was washed out of her stomach, while her pulse remained about 150 and her respiration about 40, during that day as well. She grew so weak that she could not speak above a whisper, and seemed upon the point of death. Thirty-six hours after the operation she commenced to take champagne, her pulse gradually grew slower, and of better quality, and in a day or two she was very decidedly better. Two days after the operation she had three large

bloody stools, and complained of being hungry. Five days after the procedure, she was doing finely, in every particular, and a week later taking general diet, without discomfort. She is now hungry all the time, and for the first time in twenty years can eat absolutely everything she wants.

No doubt, these hemorrhages came from the anterior lips of our visceral incisions. The posterior ones are united by a lock stitch, whereas, this, is scarcely a physical possibility for the anterior lips. The Mayos re-operated on such a case, found the bleeding point, and ligated it, with ultimate success. However, I should never have dared to do anything of the sort, in the condition which my patient found herself, when a ligation was most urgent.

In my next-case I will report a complication of the modern no-loop operation, the like of which has not yet been recorded in surgical literature. My friend, Dr. J. G. Mumford, of Boston, reported a case recently in the *Annals of Surgery*, which is somewhat similar. However, it differed from mine in that his was an abnormal subject to begin with, whereas nothing unusual was noted in the anatomy of the abdomen, with which I had to deal.

Mr. M., 50 years of age, had lost thirty pounds in two years. He had had a history of long continued stomach trouble, and taking everything into consideration, we were hardly able to state in his case whether we had to deal with a chronic ulcer, pure and simple, or the same thing, upon which cancer had been grafted secondarily. However, the need of an operation was apparent, hence on Oct. 25, 1905, his abdomen was opened and a thick, white scar, the size of a dime, marking the site of an ulcer on the anterior aspect of the pylorus was seen. There was distinct spasm of the latter, even under ether, so a posterior suture gastro-enterostomy was made, after the method of Moynihan, which, as those of you know who take an interest in stomach surgery, contemplates a twisting of the gut on itself, so that the jejunum falls from left to right, instead of in the opposite direction, which Dr. Mayo has just shown should normally obtain. Five days later, he begged for beefsteak, and at the end of a week after the operation, he commenced to vomit, this continuing until he retained absolutely nothing. We got him up on the 10th day and out in the yard on the 12th, trusting that this would have a beneficent influence, but at the expiration of two weeks from the time he was operated upon, the vomited material had a fecal odor, and further surgical interference was deemed absolutely imperative. Upon again opening the abdomen, we found the following astounding picture:

The stomach, which had been greatly dilated, was now shrunken and retracted so high up under the ribs that the greater curvature was higher than the point at which the duodenum passed through the mesentery, hence, the one-inch loop of jejunum, which had pointed downward at the completion of the first operation, now pointed up-

ward, the bowel being sharply kinked at the suture line. The efferent bowel was fiat, while the afferent was immensely distended, showing that no bile ran past the kink, but all was thrown from the duodenum directly into the stomach, and vomited. It seems that the modern short loop, or, as called by some, no-loop, has at least this one distinct danger, namely, that perfect gastric drainage may result in so much shrinkage of the organ as to pull the new opening higher than the level at which the jejunum originates and thus lead to a kinking, which would not be so likely to occur if the two points above mentioned were separated by six or eight inches of movable gut, as was formerly the case before the short loop came into vogue. In this case I succeeded with the greatest difficulty in making an entero-anastomosis around the kink, and had the satisfaction of seeing the lower bowel fill up at once. In addition to this, the patient never vomited again, but the second operation was too much for his feeble condition and two days later he died.

A recent case illustrates very nicely the inability of gastro-enterostomy to permanently cure certain of these benign cases. In July, 1904, I did a posterior suture gastro-enterostomy upon Mrs. K., then 41 years of age, who had, for many years, suffered all the classical symptoms of gastric ulcer. Several scars were found and her condition was so completely relieved by the operation that, for about eighteen months, she ate absolutely everything, gained some twenty pounds in weight, and was able to take up once more her work as housekeeper. Then in December, 1905, her old symptoms recommenced; she had pain high up and a little to the left of the median line, vomited frequently, this often having blood in it, got so that she could not eat solid food without distress, lost weight, and, in fact, became physically so reduced that she came to me begging re-operation.

On the 21st of April, of this year, I opened the abdomen once more and found the gastro-enterostomy opening, apparently as wide as I had left it, without even an adhesion around it, and the pylorus open as well. In fact, the mechanical status seemed to be all that one could desire. However, the stomach was adherent to my old scar in the abdominal wall, and considerably distended, hence I determined to resect the ulcer-bearing area, including the scar, and thus do away with whatever element of crippling this might produce. The operation was easily accomplished, and, to my astonishment, when the viscus was opened, I found three typical round ulcers lying side by side, on the lesser curvature, in spite of the fact that this stomach had two good points of drainage. As might be expected, the patient has recovered perfectly from her symptoms. She was up in a few days, and three weeks after the operation went home, eating a general diet, and expressing herself as being perfectly pleased with the outcome.

I just stated that resection has completely displaced gastro-enterostomy in the treatment of cancer wherever this is physically possible.

However, there are still a large number of patients whose fear, or, in some cases, I am sorry to say, whose physicians keep them from having an operation done, until that fortunate early period is passed, in which a resection is possible and feasible. It has been my misfortune to encounter quite a number of these patients, and to show what striking benefits are manifest for a short time after gastro-enterostomy in some cases, I will mention the following three:

Mrs. F., 54 years of age, came to be operated on the 16th of September, 1905, after having lost sixty-seven pounds, vomiting everything and living on fluids for many weeks. When her abdomen was opened, it was seen that she had a carcinoma at the pylorus, which had invaded the pancreas to such an extent as to render resection impossible. The stomach was immensely dilated, and, in view of her reduced condition, an anterior gastro-enterostomy was made with the button, not more than fifteen minutes being consumed in the whole operation. The next day she stated that she felt the greatest relief, being free from the annoying peristaltic movements for the first time in many weeks. She did not vomit again after the operation. Three days later she was up in a chair, and six days afterward was walking around, hungry, and begging to go home. Eight days afterward she ate general diet without distress, and on the ninth day was sent home feeling stronger than she had for a long time. On the thirteenth day she attended her son's wedding, took part at the repast which characterizes such occasions, when I last heard from her, a few weeks later, was rapidly regaining weight.

Mr. M., a saloonkeeper, had a simple Murphy button gastro-enterostomy done on the 24th of February, 1906. For days, previous to this time, he had vomited everything he ate and drank. He had lost seventy pounds in ten weeks and was in every particular a pitiable object. The day after the operation he was entirely comfortable and did not vomit again while he was in the hospital. On the eighth day he was up most of the time; on the eleventh, he was eating everything, and on the thirteenth went home apparently in first-class condition, gaining in weight, with no stomach symptoms. This day, less than two weeks after the operation, he was found tending bar by one of my assistants who chanced to visit his place of refreshment. Two and one-half months after the operation I saw him again, and he stated that his old pains had returned, showing that the dreadful malady was now reasserting itself, and he will, no doubt, soon pay the price, which an earlier radical operation might have saved him.

A third patient furnished the most striking example in all my experience of what can be done by gastric drainage in cancer of the pylorus. A few days ago, on the street in St. Louis, I met a plump, red-cheeked woman, who seemed to know me, and after a second glance I noted a family resemblance which led me to inquire after the condition of her sister, remembering that I had done a gastro-enteros-

tomy for cancer on one of three similar-appearing sisters, some months before. The lady smiled and said, "I am the sister to whom you refer." When she said that she had gained forty pounds since my operation of six months ago, it is readily understood why I mistook her for her overly-healthy relative. It is possible that our eyes deceived us in the character of her lesion, but several gentlemen, for whose knowledge of gross pathologic anatomy I have the highest respect, were present at the operation and confirmed my opinion that it was a cancer of the pylorus and lesser curvature, which had invaded the transverse meso-colon to such an extent that radical operation was not to be thought of. Further comment on this case is, I trust, unnecessary.

The faulty mechanics of our older methods in this work are well brought to light in the recital of a case in which I was recently forced to re-operate.

The patient is a Miss W., thirty-six years of age. My first operation in her case was done three years ago this month. There was a typical history of gastric ulcer with vomiting of blood and at the operation the lesion was found near the pylorus. I did a posterior, suture gastro-enterostomy with a loop about eight inches long, as was common at that time. In addition I short-circuited the loop by connecting the two limbs with a Murphy button.

Now the interesting part of all this comes when I relate that after six weeks of such health as she had not enjoyed for years, she commenced to vomit bile in spite of the entero-enterostomy and has continued to do so up to the present time, or rather, up to last month when I again opened her abdomen and found both anastomoses about the size originally made and the ulcer completely healed as far as the exterior of the stomach showed.

It is of value to have demonstrated in this way that bile will flow past an opening in the gut and gain access to the cavity of the stomach.

Since the second operation the patient has not vomited, and in fact I have demonstrated by lavage that there is not a trace of bile in the stomach. This second procedure consisted in cutting the bowel in two just above the entero-enterostomy and implanting the upper portion into the side of the lower. This completed what is known as the Roux "Y" anastomosis.

One of the more recent developments in stomach surgery has been the attempt to treat the dragging down tendency of atonic dilatation by gastropexy.

On account of the fact that the individuals thus effected are almost always neurotics and consequently hard to benefit permanently by any sort of treatment, one hesitates to attempt this operation. Especially did I enter upon this subject with trepidation in view of the fact that stomach surgery has had most of its failures to chronicle

in just this class of cases, in which formerly fruitless gastro-enterostomies and other drainage procedures were undertaken. However, some excellent names are behind this procedure and I have tested it twice.

One of these cases was operated upon four months ago and the second two months ago. The procedure and the subsequent history is the same in the two and, on account of the second being too recent to be of much value, I will recite the history of the first alone.

The patient was a woman thirty years of age, white and unmarried. She had suffered from pain in the abdomen at intervals since she was fourteen years old. Serious indigestion had commenced three years ago, without known cause. At first she had vomited a good deal but not much recently and never any blood. A feeling of pressure and discomfort in the stomach region always commenced about an hour after eating. She is constipated and has lost in weight from 108 to 93 pounds. On account of the distress caused by food she has gradually limited her diet to eggs and milk. The pain is so great on standing up that she lies down most of the time, which gives more or less ease.

Physical.—The patient is a small, delicate, emaciated individual whose lower costal cartilages meet at a very acute angle. She complains of great pain when pressure is brought to bear in the middle line half way between ensiform and umbilicus. At about this point a transverse, sausage-shaped resistance can be felt which is tender on pressure. The stomach is dilated and extends with its lower border about two inches below the umbilicus.

Operation.—The abdomen was opened and the stomach found to be distended and lying so low that its minor curvature was not one inch above the umbilicus. The pylorus admitted my thumb and the duodenum was greatly distended in its first portion. To correct the displacement five interrupted silk stitches were used at intervals to unite the greater curvature to the anterior abdominal wall at about the former level which the lesser curvature had occupied. These stitches were placed a little more than an inch apart. The patient vomited a few times after the operation, but aside from this made a perfect recovery. Four days later she stated voluntarily that the dragging pain in the stomach region was gone. In a week she found that she could take soft food with very much less discomfort than before the operation. A few days later a forced general diet was commenced, the patient taking six small meals a day. Within four weeks from the time of the operation she had gained considerable in weight and in spite of the large amount eaten, remained completely free from digestive symptoms of any kind. Almost three months after the operation I heard from her physician that she was entirely free from the old dragging pain which had formerly caused her to lie down

most of the time, was eating everything and considered herself a normal individual.

I only trust that when a sufficient time to judge such a case has elapsed that her condition may remain satisfactory.

My personal experience with resection, as opposed to gastro-enterostomy whether in the treatment of cancer or of ulcer, has been so decidedly in favor of the former that I can not help expressing the hope, and indeed the opinion, that we will become more and more radical instead of less so in the treatment of all well-defined organic stomach lesions. No surgeon of the present date, who is at all conversant with gastric work, thinks of doing anything but a resection for malignant trouble where this is by any means possible, and I am firmly convinced that the same stand will one day be taken regarding surgical ulcer. I have seen gastro-enterostomy cure an ulcer patient immediately and for all time, but I have also seen a few results which were not ideal. However, the resection cases do brilliantly from the start and, other things being equal, they can be sent home with a much more positive assurance of definite cure than is possible where the simpler operation is done.

To illustrate the point I can not refrain from reciting the case of a gentleman whose stomach I resected only a few weeks ago. The history was.—he is fifty-five years of age, white, a business man and married. He has suffered from digestive trouble for fifteen years and, without going into details, I will simply state that this has been chiefly a matter of pain of a character so intense that morphine practically failed to give relief. He has vomited blood and had blood in the stools. The contents of the stomach are of an acid re-action and a mass the size of a lemon can be felt a little to the right of the middle line, two inches above the umbilicus. When the abdomen was opened this mass was found to be one of the largest callous ulcers that I have ever seen, in the lesser curvature, extending onto the anterior and posterior stomach walls with tiny nodules on the anterior wall and fairly large glands along the minor curvature. I did a resection after the second Billroth method, the whole procedure taking a little less than an hour.

The night before the operation he could not sleep for pain, and a few hours before it he vomited an immense amount of blood. However, after the procedure he never vomited again, has not had one twinge of pain to the present time, his pulse has never been rapid, he began to take a general diet on the tenth day, was up on the twelfth, went home within three weeks from the time he entered the hospital and tells me now that life is worth living for the first time in fifteen years.

The gastrectomy patients give practically this history without exception, while the same can not always be said where one contents himself with a gastro-enterostomy. In the instance under discussion it

would have been little less than criminal not to have made a resection on account of the possibility of secondary cancerous involvement and one must take into consideration the likelihood of cancer engrafting itself upon an ulcer where there are at the time of operation none of the external evidences which were present here.

I have not yet received the pathologist's report on this case so am not prepared to state definitely the character of the lesion, but in either event the patient has an excellent chance to remain well.

The time which has elapsed is still too short to enable me to say very much about definite results in the cases now under consideration. However, it is not without value or interest for my readers to know what has been accomplished up to date. In this connection I will consider only the patients upon whom I did gastro-enterostomy, resection and gastropexy.

It will be remembered that two patients died after gastro-enterostomy and two after resection. This leaves twenty-five of the former, five of the latter and two on whom the position of the stomach was corrected. Twenty-one of these patients suffered from benign and eleven from malignant diseases. I have only been able to keep in touch with eighteen of the former, two of these the gastropexies—as has been stated above, being in the best condition to date. This leaves sixteen benign patients.

Six of them had no more stomach symptoms since the operation, some being among my very earliest cases. One remained perfectly well for six months and then died of a lung affection. Four considered themselves cured for a period of several months, and may now be regarded as well at times, or one might better call them in general "improved," and I believe that these four patients would be reasonably comfortable if they could only be induced to live rationally. In two other cases it is still too soon to make any prognosis. However, I will state that both are completely free from symptoms a few weeks after operation and express themselves as being already recompensed for the ordeal by this temporary relief from pain, no matter what the future may have in store. Two of my benign patients received absolutely no benefit from surgical treatment.

I can tell more about my malignant cases than about the others, since I know the history to date of all the eleven who survived gastro-enterostomy or resection, making no count of the three whom I simply explored. It will be remembered that one resection and one gastro-enterostomy for malignant diseases resulted fatally.

There was the most marked immediate benefit in every instance. All of these patients stopped vomiting and commenced to eat very soon after the operation. Three of them lived nearly a year after gastro-enterostomy and of these three, two remained free from stomach symptoms and gained astonishingly in weight during the greater part of this time, while the third did about as well, excepting in so

far as weight is concerned, she being seventy-five years of age. One dropped dead on the street two weeks after leaving the hospital. In this connection it is interesting to know that he had just been able to eat a fairly hearty meal without stomach symptoms.

Four lived from two to six months after the operation with varying periods of freedom from symptoms. Three are now alive two weeks to six months after the procedure and at least two of them are in a condition of relative comfort.

I have attempted in the above to make out a reasonable plea for more and earlier gastric surgery. I believe I have shown that the work is not more dangerous than other operative lines, to which we all recommend our patients. The time is passed when we allow a sufferer from appendicitis, or gallstone disease, to go on gradually to death, or chronic invalidism, and shall we not now take the same common sense, business-like view of the stomach diseases, which have been shown to be highly amenable to surgical treatment?

TREATMENT OF ADENOIDS BY THE GENERAL PRACTITIONER.*

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Every country practitioner of medicine has his fads, fancies and hobbies along some special branch of the healing art. The different fields of medicine give each a chance to show his inherent bent by rather specializing certain diseases.

Some select one branch and some another, just as his tastes direct. It is well that we do not all have the same likes and dislikes, or the medical world might never have known a Koch, Virchow or a Pasteur.

I do not claim to possess any extraordinary ability in treating this disease, but have chosen this subject because it has been much neglected by the general practitioner, although more frequently met with than generally supposed. Dr. Meyer, of Copenhagen, was the first to demonstrate the clinical importance of the hypertrophies of lymphoid tissues, situated at the vault of the pharynx. These hypertrophies have, however, been known since the time of Wm. Hunter.

Etiology.—It is chiefly a disease of childhood and adolescence, more common between the ages of two and fifteen years, and seldom seen after the age of thirty. Sajos informs us that "It does not seem to be due to any special diathesis, although, as shown by Lowenberg, a lymphatic temperament seems to predispose to it. The origin is probably traceable in all cases to a catarrhal state of the naso-pharynx, the causes of the latter being, therefore, the primary etiological factors." "In children the lymphoid tissue is especially susceptible to

*Read at the Annual Meeting, Jefferson City, May, 1906.

vascular changes on comparatively slight causes, and repeated colds from which they suffer keep the lymphoid tissue of the pharynx congested—over-fed, so to speak—and over-growth is to be expected.”

It is also said to be found more frequent among the Jews than the Gentiles.

The uric acid diathesis is claimed by some to be a cause of adenoids.

Sex seems to have but little influence in the development of adenoids, as they each reach about the same per cent. Heredity has been attributed by many as an exciting cause, which has been indorsed by Price Brown, Delevan and others, while Hajeck only found ten per cent of his cases apparently of hereditary origin.

Enlarged faucial and lingual tonsils, deformed hard palate, and deviation of the nasal septum have all had their ardent advocates and supporters as potent factors favoring the development of this disease but the theory advanced and promulgated by Sajos, that “the origin is probably traceable in all cases to a catarrhal state of the naso-pharynx,” is now considered one of the most potent causes of the over growth of adenoid tissue.

The obstruction and stenosis of the nasal passage, as advocated by Greville MacDonald, Eames, Hopkins, Hill and others as a cause of lymphoid hypertrophy go far to support the theory advanced by Sajos as being the most frequent cause of naso-pharyngeal adenoids.

Pathology.—There is such a close analogy between the glandular tissues of the vault of the pharynx and the tonsils that Luschka was led to describe this tissue as a pharyngeal tonsil, which bears his name. Embryologically considered, the rhino-pharyngeal tonsil is the earliest to appear, the faucial next and the lingual last. They also undergo atrophy in like order.

Shurley says “adenoids are simply a hypertrophy of lymphoid tissue normally present in the pharynx and naso-pharynx. The lack of fibrous elements in the pharyngeal tonsil accounts for its friability.”

In all cases of chronic inflammation of glandular tissue we find the recuperative power of the part diminished in proportion to the severity and number of recurrent attacks of inflammation, and the hypertrophic process is but a result of the continued hyperplasia.

Symptoms.—The most prominent symptom which we observe is the obstruction to nasal respiration, from the filling up, more or less completely, of the naso-pharynx. The patient is obliged to breathe through the mouth, and this is followed by diseased processes in the pharynx and larynx. The voice has a muffled sound, a “nasal twang.” The child cannot sound the consonants “M” and “N,” and hence they can not talk plainly.

Appearance.—“The patient has a peculiar, stupid, expressionless countenance, drooping eyes, open mouth, noisy respiration, with continuous acts of deglutition, and there is often lack of development or a deformity of the thorax, with or without asthma.”

Sleep.—The patient is restless, tossing about in bed; distress in breathing, owing to the nasal obstruction; bad dreams, accompanied by nocturnal enuresis is sometimes observed.

Appetite.—Is often capricious. These patients often suffer from indigestion, as they do not masticate their food properly on account of obstructed respiration.

Face and Chest.—It is thought by some rhinologists that the naso-pharyngeal obstruction due to adenoids is a frequent cause of abnormal development of the superior maxillary bone, the high arched palate and the over-hanging of the front teeth over the lower set.

Also that the child's continuous efforts to get more air into the lungs and overcome the nasal obstruction is an important factor in producing round shoulders and flattened chest.

Hearing.—Difficulty in hearing is usually the first symptom to attract the mother's notice, and it is for this trouble that these cases usually consult a physician.

The extent of ear troubles depends very much upon the size and location of the growth. If the adenoid hypertrophy is situated high up, a comparatively small amount of growth will block the eustachian tube and cause auditory troubles; whereas, if it is low down there may be extensive vegetation without the tube being implicated. If, however, the pharyngeal vault is completely filled with lymphoid tissue, so that the fossa of Rosenmüller is obliterated, this mass pressing upon the eustachian tube cannot help having a deleterious influence upon the middle ear, and this influence extend to the labyrinth.

John Dunn, of Richmond, Va., explains the causes of deafness in cases of adenoid hypertrophies as follows: "Repeated inflammations of adenoid hypertrophies in certain cases cause a sclerotic process which, when once started, does not cease as long as there remains lymph tissue in the growths; its effects are not confined to the hypertrophies themselves, but a similar process may be determined by it in the adenoid stroma of the mucous membrane lining the eustachian tubes and middle ear.

Wokes asserts that ninety-five per cent. of the cases of naso-pharyngeal hypertrophies result in aural complications.

Deaf Mutism.—Floyd, in a recent article on adenoids, expresses the belief that upon strict examination, it could be found that the disease under consideration is the most frequent cause of acquired deaf mutism.

Aldrich reports adenoid vegetations occurring in seventy-three per cent. of deaf mutes; Peison, more than fifty per cent. while in healthy children it was observed in only one per cent.

Respiratory Troubles.—The occluded nose induces mouth breathing, which is injurious to the lungs, as "the supply of imperfectly prepared air engenders passive congestion of the mucous membrane lining the air tubes" and interferes with the proper oxygenation of the

blood, leaving the system open to the invasion of various morbid germs. The nasal stenosis may also produce auto-intoxication by the over production of carbon dioxide.

Reflex Troubles.—Headaches are infrequently cured by removal of the adenoid growths. Eustace Smith reports a case of laryngismus stridulus, or false croup, caused by adenoids, and cured by their removal.

I also wish to report a case of periodical convulsions in a boy twelve years of age which was cured by the removal of adenoids and circumcision.

Asthma has frequently been relieved by operations on the nasopharynx.

Among the many important symptoms of adenoids we have to consider, there is one which is attracting the attention of many investigators to-day, viz., the effects on cerebration.

Sisson, in his most excellent paper, "Naso-Pharyngeal Adenoids," says: "Those who have studied the conditions are agreed that the obstruction to respiration or other mechanical effects of these growths are utterly inadequate to account for the tremendous disturbances of nutrition, both bodily and mentally, associated with them, and relieved by their removal.

Dr. Harrison Allen long ago pointed out this particular form of mental impairment and defective intelligence, simulating idiocy, which accompanies even a moderate increase of adenoid tissue in the region alluded to, and advanced this hypothesis explanatory of the etiology. He pointed out the histological resemblance between the lower portion of the pituitary body and the pharyngeal tonsil, both being glandular in character, and shows anatomically a connection by means of a canal, which closes during fetal life, by which the top of the pharynx communicated with the interior of the skull, so that masses of glandular tissue must have originally formed a portion of the original pharynx.

Shurley refers to the effects on cerebration as follows: "The child is usually as stupid as he looks. This stupidity has, according to A. Jacobi and Solis Cohen, an anatomical basis in the relation between the lymphatic circulation through the brain to the nasopharynx. The presence of a large mass of hypertrophied tissue interferes with the proper drainage, so to speak, of the brain."

T. S. Fleteau gives an account of his experiments in demonstrating the communication of nasal lymph-passages with the subarachnoid space. He quotes a case of chronic hydrocephalus which got well after an abundant serous discharge from the nose. He states that Naunyn and Schreiber were able to inject warm salt solution into the subarachnoid space of the dog and make it come out at the nose, the phenomena being accompanied by protrusion of the eyes and chemosis.

Schwalbe, Key and Ritzuis demonstrated the existence of this communication. Flateau proves the correctness of former experiments by injection experiments of his own, but finds that, although injections into the subarachnoid space reached the nose, the injection of colored fluid into the nose did not, however, lead to an entrance of the fluid into the arachnoid space, on account of the obstruction presented by the columnar epithelium.

Dr. Woods Hutchinson says: "Not infrequently in early life a fibrous cord runs up through the body of the sphenoid, connecting the pituitary body and the pharyngeal tonsil, and it is not unreasonable to suppose that structures which were originally continuous may yet retain reflex sympathy with an influence upon each other's conditions."

"To say that such authorities as Osler, Dana and others have indorsed these statements only serves to increase their value. The results of this reflex, if such exists, are apparent to every neurologist. May it not be manifest in the backwardness and stupidity observed in the majority of children suffering from these conditions? The child has great difficulty in keeping up with his classes in school and is looked upon as being dull, and, as a result, is held accountable for that which he cannot help. Harrison Allen even ventured the opinion that there are many children in homes for the feeble-minded and idiots throughout the land who are victims of this condition, and who, possibly, could be restored to usefulness and their families by a comparatively trifling operation."

Pyncheon is inclined to regard the disturbances of cerebation largely due to autotoxemia from defective oxygenation of the blood and gastro-intestinal disorders.

"The sum total of these observations is that the pharyngeal adenoid, with the accompanying nasal occlusion, when not corrected, leave an indellible strain upon both the mental and physical condition, which will tell on the whole future existence, so that success and happiness in life may be hindered, and the ultimate physical power and efficiency inevitably more or less diminished."

Diagnosis.—The diagnosis may seem easy, owing to the prominence given some of its many subjective symptoms, but in all cases a thorough examination should be made of the nasal passages and nasopharynx. If we happen to be fortunate enough to meet with these cases in an adult we may use the rhinoscopic mirror to confirm our diagnosis, but as the vast majority of these cases are found in children, posterior rhinoscopy is impractical: therefore reliance must be placed upon digital examination.

Posterior rhinoscopy reveals so little of the actual growth that we cannot depend upon it with any degree of accuracy, and in all cases we should complete our diagnosis by digital examination, depending more upon what the finger reveals than the rhinoscopic mirror.

Treatment.—Effective treatment of adenoid growths is exclusively surgical. Local or medical applications are only palliative and do but little good. It is, however, advisable to use a mild cleansing antiseptic alkaline solution for a few days before operation in order to reduce the associated catarrhal condition of the nasal passages. This may also be used for a few days following the operation as an adjunct to the treatment.

As a preliminary treatment the syr. of iodide of iron or hydriodic acid may frequently be found beneficial as suitable internal medication for the improvement of the general health.

I will not attempt to mention the many different methods employed in the removal of adenoids, as each operator has his own favorite method. I will simply outline the method, seeming to me the the easiest, safest and most complete for the general practitioner.

Charles H. Knight, "thinks one of the best instruments for use in these cases is one which we are all provided, i. e., the forefinger. The forefinger will be found especially useful in young children in whom the growth is of recent development and friable in texture, or in the case of very young children in whom we do not wish to use an anesthetic."

My experience in these cases has been very limited, but in small children I have found the use of the foreigner to be a very useful and efficacious instrument.

If an anesthetic is used I prefer to have the child placed in the recumbent position, the head hanging over the table, as in this position the blood is not so liable to pass into the trachea. My choice of instruments under such circumstances are Gradel's forceps, Gotstein's curette and the forefinger; these are sufficient to meet all requirements.

Conclusion.—I have written this paper hoping to impress upon the general practitioner the importance of this subject, and hope that we may all become more familiar with the means adopted for its radical cure.

I also wish to indorse the measure proposed by my friend and former classmate, Hanau W. Loeb, in which he suggests that "the State should provide for the examination of all school children with a view of correcting this common affection and the symptoms which it occasions."

BIBLIOGRAPHY.

- Shurley: Diseases of Nose and Throat.
 Sajos: Diseases of Nose and Throat.
 Sisson: The Laryngoscope, 1897, Vol. 2, No. 6, P. 333.
 Lautenbach: Treatment Naso-pharyngeal Adenoids.
 Annual Universal Medical Sciences, 1891, Vol. 4; 1893, Vol 4.
 Knight: Adenoids in the Naso-Pharynx, International Clinics, 1893.
 Pyncheon: Med. Monograph, Feb., 1899.
 Floyd: Cincinnati Lancet Clinic, July, 1903.
 Sendiak: Laryngoscope, April, 1897.

A METHOD OF RADICAL RELIEF OF CASES OF DEAF-
NESS LONG ABANDONED AS HOPELESS: ILLUS-
TRATED BY REPORTS FROM ACTUAL
PRACTICE.*

BY ROBERT BARCLAY, M. D., ST. LOUIS, MO.

In the few minutes so kindly assigned me by your Committee, it will be possible to give you but a brief and bare outline of the proposition before us; and that, in but a simple and direct style. I trust, therefore, that you will grant me the indulgence of your attention and criticism, exclusively to the theme before us; and that you will graciously pardon the obtrusiveness of my effort, studiously to avoid all demonstration of facts now accepted generally by the ablest experts in this field of practice. With this apology for confining myself to as brief and bare a statement, as a clear understanding of our proposition may seem to admit, I would, first, ask your attention to the fact, that clinical experience seems to have demonstrated, that any very deaf person who speaks habitually in an abnormally moderated or low tone of voice, yet hears better in a noise or noisy place—please remember this!—who speaks habitually in an abnormally moderated or low tone of voice, yet hears better in a noise,—no matter how long he may already have been afflicted, and notwithstanding that every other remedial measure may have been tried in vain,—may yet be relieved by resection of the auditory conducting mechanism—by tympanic resection,—proportionately to the distinctness of these two symptoms: (once more!)—speech, habitually in an abnormally moderated, or low tone of voice, with hearing, better in a noise or noisy place.

If, therefore, among hopeless cases of deafness, you happen to meet one—particularly if he be a victim of so-called aural “catarrh”—who speaks habitually in an abnormally moderated or low tone of voice, enquire whether or not he can hear better when in a noise or noisy place. By the exercise of ordinary tact, anyone can secure, without impertinence, information, upon this point, sufficient to arrive, off-hand, at some approximately correct conclusion as to the nature of the condition underlying the deafness; and whether or not it might be such as would probably be relieved by this operation. For, if you receive an affirmative reply to your inquiry upon these points or symptoms—in more direct words, if you have met a person who not only speaks habitually in an abnormally moderated or low tone of voice, but also hears better in a noise or noisy place, rest assured, that you have met with a case of immobilization of the outer portion of

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the auditory conducting mechanism, and, as such, one presumably susceptible of relief by removal of this mechanical obstacle. These patients will tell you, that they are often asked to repeat by others, especially strangers, and frequently by members of their own household, to whom they may happen to have spoken, from time to time. They will tell you, also, that when many are talking at once, near them, as at a lively reception, their hearing is better; whereas, at a *tete-a-tete*, or in a quiet place, their hearing is not as good. Now, here, you have a test, approximately reliable; one which requires the use of no apparatus, no instruction, nor any preparation whatsoever, for its instant application; and one which once heard plainly stated, any of you, or even a layman, can apply, at any time, as a rule; and under any circumstances that admit of apparently casual conversation with the patient. Moreover, the facts may be elicited—the test actually made—without the patient's so much as even suspecting its import, or even becoming aware that a test is being made. When I state this, surely none of you need be ashamed to invest these few moments' thought in numbering this among your many practical attainments. And, as progressive men, every one, you will be especially interested to learn, that it is mainly because of the uncertainty and unreliability of other, and generally acceptable methods of identifying relievable cases, and the fact, that dependence upon those diagnostic methods has, so frequently and so unexpectedly, been attended by therapeutic failure, that otologists, discouraged, appear, one by one, to have abandoned these wretched patients, hopeless, to their fate; and not only have given up the operation upon the middle-ear structures in these cases, but have even gone so far as publicly, in the medical press, to denounce it. A few of us, however, more hopeful, perhaps, than the rest, have considered it irrational to condemn a potent therapeutic agent such as this, as harmful or even useless, simply because of results, however lamentable or disappointing in themselves, arising from the indiscriminate or inappropriate employment of such agent. Particularly, since propriety and reason affirm of this, as of every other resource, whatsoever, that its value lies not only in its application, but in its proper application. And as, occasionally, we have met with marked instances of the undoubtedly advantageous application of this remedy, obviously beneficent, failure or disappointment has but strengthened our determination to perfect the search for the exact indications for its employment. Working alone this line, then, practical experience leads me to offer you, briefly, the following suggestions:

Deafness, long abandoned as hopeless, is usually due to one or more of three chronic conditions:—"Nerve-deafness;" "Mechanic's-ear;" and "Immobilization of the Auditory Conducting Mechanism." Chronic immobilization of the auditory conducting mechanism is a condition affecting sometimes only the inner, sometimes the inner

and outer, and sometimes only the outer portion of this apparatus. With the latter and its consequences attending the former we have but to deal, on this occasion: for, of this latter condition I have emphasized what seems to have been proved, clinically, its pathognomic symptom-complex. Briefly, I would state, that when the outer portion of the conducting mechanism has become immobilized, from whatever cause or condition, sound-waves arriving, aerially, from without, find their force transmitted to the deeper parts with the greatest difficulty—while all the parts concerned are in a quiescent state in a quiet place:—and, here, the patient is deafer. Amidst a noise or in a noisy place, however,—as in a moving street-car or railway-train—the parts, elsewhere, in quieter surroundings, immobilized,—are shaken more loosely from their abnormal degree of attachment to each other and to surrounding parts, thereby liberating them to such a degree, that speech of ordinary pitch and volume, and other sounds of more fixed intensity—as of the bells, gongs, passing cars, whistles, etc.—become more readily audible, and the individual is thereby enabled to enjoy the hearing of sounds which, in quieter surroundings are absolutely unheard at all.

Again, sound-waves generated within the patient's own head, in the performance of the physiological functions of mastication, deglutition, phonation, etc.—seeking exit through the tissues of the head and ear, meet with abnormal resistance upon reaching the immobilized outer portion of the auditory conducting mechanism, and their force is thereby echoed inwardly, whereupon it passes toward the normally movable parts, lying deeper, and to the perceptive apparatus within. The voice for example is thus heard not with the usual normal force, but re-enforced by this echo; sounding, therefore, to the patient more loud than it actually does to any other person at his side or near him. It thus happens, that, in order to give his own voice, what appears to him a normal volume and pitch, he unconsciously and habitually lowers or moderates his own voice to a markedly abnormal degree. If, however, there is deeper fixation or if there be labyrinthine or nerve deafness, his perceptive apparatus will not be sufficiently excited for him to appreciate his own voice as of normal, but, as of subnormal pitch and intensity, and he will therefore habitually raise both pitch and volume of his own voice. Thus you have an approximately certain method, by this test, of arriving at a definite idea and probability as to the nature of his deafness.

Immobilization of the outer portion of the auditory conducting mechanism is due as a rule to one of two processes: *otitis media purulenta*, or so-called "running-ear"; and *otitis media catarrhalis*, or so-called "aural catarrh."

Now, the underlying condition of altered tension, mobility or inertia, or combination of these, in one or more parts of the outer portion of the auditory conducting mechanism, affects the inner portion

of this mechanism, impairs its normal mobility and operation as a mechanical unit or lever—disturbs labyrinthine tension—and acts as an obstacle to the normal transmission of the force of sound-waves to and from a functionally active labyrinth and auditory nerve within:—a condition, as you very readily understand, necessarily attended with chronic progressive deafness. Sooner or later, as a rule, these patients complain of other most distressing symptoms, for the relief of which, frequently, they are driven to us, perhaps, long after they have abandoned all hope of relief of their deafness—in some cases, indeed, after many, many years; as in the cases I shall cite to you, later, in illustration, a number of which have already been reported in the medical periodicals.

Any of the following may occur with the deafness, as concomitant symptoms:

Dizziness;

Discharge from the ear;

Habitual speaking in an abnormally moderated or low tone of voice;

Better hearing in a noise (worse hearing in a quiet place;) and Aural distress.

Now, several of these symptoms are common to cases of deafness—whether from catarrhal or from purulent middle-ear disease, arising as they do, in either case, from the similar underlying physical condition named above. And the question of their susceptibility of relief, resolves itself into that of the possibility or impossibility of relieving that underlying physical condition of immobilization of the outer portion of the auditory conducting mechanism.

I ask you specially to remember, that we are treating upon this occasion, of cases which have not responded to the usual and established methods of treating catarrhal and purulent otitis media; cases, which, from time immemorial, have been generally abandoned as intractable, and are, almost universally, found hopelessly incurable by all ordinary methods of treatment; cases which, after having stubbornly resisted the curative influence of ordinary remedies, at the hands of presumably qualified practitioners for years, have, at last, lost all hope of relief of their deafness.

These are the cases which I have referred to, on the one hand, as “popularly deemed hopelessly incurable;” and, on the other, as those of “hopeless deafness.” These we meet—many of them, under the test given you today, presumably susceptible of relief by tympanic resection—helpless, socially, ostracised and wretched—drifting about amongst us, abandoned to their fate—a prey to advertising quackery and the vendors of artificial ear-drums and other fakes—a living reproach to the therapeutic impotence, special ignorance, or—more discreditable still—stolid indifference of the Medical Profession generally. I say “many of them susceptible of relief;” and I speak ad-

visedly. For, as I write these lines, I can recall the names of at least a dozen individuals, of independent means, and with every social advantage, who, I have every reason to believe, could be, perhaps to even a greater degree than I now suspect, at once and permanently, relieved of their disability by this surgical procedure; yet their family physician does not speak the word; and, "ethically," others must not. And if the opportunity, thus, casually to notice this, has been so frequently afforded me, even in my limited social circle, how much greater must be the opportunity afforded others—yourselves, and the Medical Profession generally—in your wider and more varied acquaintance and practice. This opportunity must not pass any longer unimproved. And I feel confident, that you, as progressive Medical men, will cheerfully give this subject your more earnest study and attention, with a view to satisfying yourself as to the expediency.—I might almost say, necessity of the operation, based upon the application of the test proposed; and that you will exercise your prerogative in spreading about more widely the knowledge of any measure—especially this one,—that will enable us to offer such reasonable hope of relief as this does, to even a single one of these unfortunates.

In these cases, I have told you, the deafness, and other symptoms above named, arise, in every instance, from a similar underlying physical condition.

Whether this underlying physical condition obtains in catarrhal or in purulent inflammation of the middle-ear, in any given case, is immaterial, so far as regards the principle that is to guide us, in our effort to afford relief of the deafness. That principle is:—to eliminate the aforesaid underlying physical condition of altered tension and mobility in the auditory conducting mechanism, still movable, from the permanently immobilized portion without; while making provision, also, for natural drainage, and for admission of incoming aerial sound-waves, directly to the deeper, still movable portion of the auditory conducting mechanism and labyrinthine nervous apparatus within; while providing for free exit of outgoing sound-waves, generated by physiological functions within the body, normally seeking exit through the tissues of the head and ear.

An additional feature, however, presents in such cases, if the deafness be attended by discharge from the ear—active purulent inflammation of the middle-ear. For, here, we are concerned not only with the correction of abnormal tension and mobility of the conducting mechanism, but with putting a stop to an actively destructive and infectious process; the problem, here, therefore, involving, as well, that, especially, of establishing free drainage, removing diseased products, quieting irritation, and keeping the affected parts clean and disinfected. Where, in such cases, this can not be accomplished by medicinal means, whether or not the mastoid cells have already become involved, the method of tympanic resection should be resorted to, in-

asmuch as, the so-called "mastoid operation," alone, in such cases, is, at best, an illogical, imperfect, and unnecessarily hazardous resource,—mentioned here, only to be, by itself, unqualifiedly condemned.

The appropriate details of such surgical procedure are peculiar to each individual case, and are to be estimated, and put into execution, modified in detail, step by step, as the surgical and anatomical conditions confronting the operator may indicate, throughout; the best guide being the judgment of the operator—it being assumed, of course, that the case is in the hands of one, practically familiar with the surgical anatomy and physiology of the ear, and thoroughly skilled in such difficult, deep aural surgery. In my own experience, the form of operation most frequently indicated in the old hopeless cases, has been that, effecting the removal of the drum-head, hammer and anvil-bones;—the stirrup-bone, also, being occasionally removed; and bands, synechie septa, growths, etc., dealt with as indicated, sufficiently to liberate and expose the more deeply-lying auditory structures. This, not only eliminates the defects of drainage by the natural route, in the cases of discharge from the ear; but, in the "catarrhal" ones, so exposes the mucous membrane of the drum-cavity, that it undergoes a progressive, skin-like or dermoid transformation, with disappearance of the mucous glands as such.

The beautifully constructed, delicate aural surgical instruments of the present day, together with the visual and manual dexterity of the expert specialist—essentials of perfect surgical technique—ensure rapid, accurate, and thorough operation. To avoid consequent supuration, in dealing thus, surgically, with the middle-ear, one should meddle with the uninvolved parts just as little as possible. Of course, if one insufflate a lot of stimulating powder,—iodoform, etc.,—or liquid,—or push gauze or cotton down into the depth of the ear, there must, necessarily, be a reaction by the membrane and tissues covering the parts so meddled with. Extreme care is today exercised, both during the performance of the operation and afterwards,—to avoid any manipulation or procedure whatever, that might, even in the slightest degree, tend to injure or irritate the remaining structures of the drum-cavity. Careful attention is today given to the diet and general condition of the patient. In short, every precaution is taken towards simplifying the operation of today; so far, that secondary inflammation is unlooked for; and a reformation of membrane at the site of the normal drum-head—the so-called "substitutive drum-head"—is exceptional. And even when such membrane does form, it is readily removable under local anaesthesia; and is eventually disposed of thus, either with, or without the application of Traumaticin, containing a little Salicylic Acid, and by restricting the patient's diet for a variable period.

Respecting the further effects of immobilization of the outer

portion of the auditory conducting mechanism, and the *rationale* of tympanic resection as a radical remedy therefor, we should duly consider the following facts:—

With immobilization of the outer portion of the auditory conducting mechanism, we may find a defective condition of the auditory nervous, perceptive apparatus. Where the latter is due, partly, to abnormal labyrinthine tension; partly, to deficient exercise of the auditory nerve-terminals, through infrequency or weakness of such sound-waves as manage to reach them; and partly, to psychic-emotional depression, attending the affliction of intractable chronic deafness, with aural vertigo, or head-noises—this operation is indicated. And it operates beneficially, not only upon the one ear, but also upon its fellow of the opposite side; and for the following reason:—abnormal tension of the outer portion of the conducting mechanism of one ear, may produce abnormal tension of the inner portion and labyrinth, so far as to impair the function of its special nervous apparatus—the auditory nerve and its auditory centre. The auditory nerve-centre of one ear, normally, furnishes a portion of the nervous supply of the fellow ear. When, therefore, the functional activity of this auditory centre becomes impaired by abnormal tension in the one ear, the fellow-ear will so far be deprived of its normal nervous supply, and will suffer in consequence. If, on the other hand, the condition of abnormal labyrinthine tension, in the ear first afflicted, be resumed, by timely resection of its outer conducting mechanism, this entire chain of morbid phenomena may be released, and the fellow-ear rescued. Practically, this fact has been demonstrated, conclusively, by extended clinical experience with the operation, as illustrated in the report of cases which follows below.

In cases, therefore, where abnormal labyrinthine tension, in the ear first affected, would probably be reduced by this procedure, even when there appears probability of but slight benefit to the hearing of this ear, the operation seems generally advisable; inasmuch as, it tends, so far as observed, to conserve the hearing of the opposite ear, which, otherwise, would inevitably have become impaired.

In dealing, then, with the condition of abnormal tension or immobilization of the outer portion of the auditory conducting mechanism,—which you may recognize, off-hand, in cases of deafness, long abandoned as hopeless, by the presence of habitual speaking in an abnormal or low tone of voice, associated with better hearing in a noise or noisy place,—we might submit the following formula as a maxim:—

As soon as it is evident that ordinary and time-worn methods are powerless to cure, this radical operation should be resorted to,—and without unnecessary delay—as neglect to remove the obstacle in the outer auditory conducting mechanism, only keeps the more deeply lying parts, the longer, without exercise of their normal functions, af-

fects the tension of the deeper portion or labyrinth, and, in so far, tends to impair them, as well as to involve the function of the opposite ear. For the sake of the other ear, then, even if there be hope of but slight benefit to the hearing of the first ear, this method should be employed.

And, this operation is advisable, only where this condition is not amenable to medicinal, hygiene, or other non-surgical treatment. Where the more deeply-lying parts would, obviously, not be mechanically affected by such procedure, it is not admissible.

Remember, please, that when resorted to for the radical relief of cases of hopeless deafness, this operation is only designed to effect, by force, the elimination of the mechanical condition of altered tension and mobility in the outer portion of the auditory conducting mechanism—a condition which you may recognize, off-hand, by the presence of habitual speaking in an abnormally modulated or low tone of voice, associated with better hearing in a noise or noisy place.

The report of cases which follows, will, I think, demonstrate to your entire satisfaction, that tympanic resection can, and that it does, relieve cases of deafness, which respond to the test of these two associated symptoms; and that it does so invariably. Moreover, these cases demonstrate, that, even in the so-called "mixed" or complex cases, where this pair of symptoms are present, relief of the immobilization of the outer portion of the auditory conducting mechanism, by the performance of tympanic resection, invariably, amplifies the range and degree of auditory conductivity; operates as an auxiliary to production and, oftentimes, restoration of function to the deeper parts, to a gratifying degree; and, in other respects, relieves such symptoms as are due to the presence of mobilization of the outer portion of the auditory conducting mechanism.

In casting about, amongst my clinical records, for cases manifesting these two associated symptoms, I have, first, gathered those, where these symptoms were marked, and, then, those where they were more or less obscure; finding in each case, as is usual, more or less phenomena due to associated abnormal conditions, other than that of immobilization of the outer portion of the auditory conducting mechanism. No case of pure and simple immobilization of the outer portion of the auditory conducting mechanism appears amongst the cases, here, below, reported; and in an immense experience, I have found such cases, of inflammatory nature, extremely rare, if indeed, theoretically, they exist at all, in the advanced stages of such disease.

In selecting from this clinical material, matter for this purpose, I have been guided, mainly, by the duration and obstinacy of the various cases presenting,—regarding as intractable or incurable, in popular estimation, such cases only, as, after having stubbornly resisted the curative influences of all ordinary remedies, at the hands of presumably qualified practitioners, for years, had, at last, been

abandoned as hopeless—those cited below having been diseased, for from twenty to thirty-four years or more.

In my final selection, I have given preference to those cases, whose clinical features are of the character most frequently encountered; and, as the physical conditions, in the various cases, seem to correspond so imperfectly and so irregularly to the intensity of the various symptoms, I have, with slight exceptions, omitted all mention of them—preferring to report each case in its clinical aspect, as it seemed to affect the patient, and, then, to demonstrate the relief that was later experienced by him. Wherever admissible, therefore, I have quoted the patient's own words, whether spoken or written—to describe his own symptoms and experience, whether before or after operation: and, rather than edit, have fearlessly reported *verbatim* anything of a laudatory character to myself, when part of the patient's sentence describing his own estimate of his experience; omitting, of course, all other matter of personal interest or reference to myself in the case. This has seemed the best way to give you the most correct impression of the effects of the operation, as estimated by the patient, himself or herself, and by his or her relatives and friends.

All patients thus operated upon by me, are instructed to return to me promptly, after dismissal if symptoms return, if, otherwise, the result does not prove satisfactory to them.

Whatever the opinion of others, respecting the indications for or against the operation of tympanic resection, in these cases; and however these be respectfully and carefully considered—the clinical results of my own practical experience with the method of differential diagnosis, herein advocated, and of surgical interference, when thereby indicated—as illustrated in these few of my cases that we may have time to consider here,—will, I trust be deemed sufficient to demonstrate, to your satisfaction, its advantages, for the purpose for which it has specifically been advocated upon the present occasion.

REPORT OF ACTUAL CASES OF DEAFNESS LONG ABANDONED AS HOPELESS, IN WHICH IS DEMONSTRATED, THE DIAGNOSTIC SIGNIFICANCE OF HABITUALLY MODERATED OR LOW TONE OF VOICE, WITH BETTER HEARING IN A NOISE, AS AN EVIDENCE OF IMMOBILIZATION OF THE OUTER PORTION OF THE AUDITORY CONDUCTING MECHANISM; AND ITS IMPORTANCE, IN SUCH CASES, AS AN INDICATION FOR THE EMPLOYMENT OF SURGICAL MEASURES FOR ITS RADICAL RELIEF.

Nearly twenty-five years.—A very deaf lady, forty-six years of age, consulted me, stating that she had been thus deaf from catarrh for nearly twenty-five years.

At the time of our first consultation, it was noted that she spoke in a very low and hollow-tone of voice. Then, all sounds were heard

by her better with the right ear, which could be made to hear a loud whisper. The left ear was practically deaf to all ordinary sounds, except "sharp" ones. Upon a moving street-car, she could hear so much better that nearly everything was heard by her, even conversation not intended for her ears. After leaving the car, this improved hearing persisted for a short while, when she became deafer than before, and suffered from headache. Nervous excitement was always attended by better hearing. The clacking noises of a machine-shop always caused ear-aché. Sounds of horses' hoofs were inaudible to her unless standing right at the curbstone. The motorman's gong and conductor's signal-bell were audible to the left ear from the pavement; to the right, from an open second-story window above; these sounds being inaudible to her when the window was closed. Only the very highest-pitched tones of a large Number 2. Regina Music-Box were heard by her with her ear just off the box; the music being audible only on actual contact with the box. By careful harkening, she could hear with the right ear, news-boys' shouting across the street; with the left, only when directly alongside. Even with both ears, she could not hear the singing of a choir outside the open door of her room; nor could she distinguish the words, nor any but the highest tones of friends, singing in her own parlor. Her own front-door-bell was inaudible to her unless near by it; and she could not distinguish the sound of a horse or vehicle crossing a three-plank bridge one-hundred-and-fifty yards from her home. Band music was inaudible to her unless but a short distance away. The rustle of leaves in the tree and the song of the locust could not be heard with the left ear; nor could she bear the clang of a scissors-grinder's advertising-chime, as he pushed his cart beneath her second story window. Only when alongside, could she hear the lighting of a parlor-match. Her husband's voice was heard with the left ear at about two-feet; my own ordinary voice at less distance. Tuning-fork tests showed that her hearing was reduced seventy-five *per cent.* for single tones in the middle octave of the human voice. The watch was heard by either ear on pressure-contact only. The lower tone-limit of hearing of the right ear was a trifle below sixty-four vibrations a second; of the left, considerably above this.

Concealed from me at the time, was the fact of her suffering additionally profound deafness and severe high-pitched "ringing in the ears," with profuse menorrhagia, at each return of her monthly sickness; and that the exsanguination was attended with exhaustion and even dizziness, with faintness,—upon one occasion, actually ending in a so-called "dead faint."

Sometime after the second ear had been operated upon, the family-physician, in joint attendance upon the patient, discovered, that the menorrhagia was due to a bi-lateral laceration of the cervix, with subinvolution of the uterus. This was later operated upon by him,

with prompt and entire relief of its attendant symptoms:

With the patient's consent, the left, or worse ear was operated upon—the right, seven weeks later. In each instance, the nervous condition of the ear of the opposite side also was at once appreciably improved, and proportionately to the increased conductivity in the ear just operated upon. Gradually they have approached a similar condition, until, at last examination, there was, as far as I could detect, no marked difference between the hearing of the two ears.

After the operation upon the worse, or left ear, upon recovering from the anaesthetic, in bed, the patient spoke of hearing a flood of noises; and first of hearing the sound of horses' hoofs coming through the open window of her second-story room. About the third evening later, she recognized the voices of news-boys, "crying" their papers out on the street below. About the fifth evening, she first heard the news-boys, whistling, outside. One week after the operation, she heard the choristers singing in the hall, outside her room; and, standing in the doorway, could hear their words also. From a house, one-half block away, opposite her window, she could distinguish the echo of a school bell five blocks away in the opposite direction. The sound of a car-bell was now audible to her from her bed. She could hear my ordinary voice, three or four feet away; and her husband's at six feet. A little later, she could recognize the song of locusts and the sound of leaves a-rustling in the wind. Then, she found that she could distinguish, and recognize, from her bed, the different news-boys' voices, in the street below. The clang of the two higher, of the three bells, forming the scissors-grinders' advertising chimes, were heard by her, soon after the operation; the third, a low-pitched one, about five or six weeks later. One day, about this time, while sitting reading, she was startled by the sound of a pistol-shot, *as she supposed*, coming from the hall. It proved to have been nothing but the striking of a parlor-match outside the open door. Seven months after the operation, her husband informed me that her hearing had still further improved, so far as to enable her to hear her front-door-bell from the attic of her home, with all doors closed; that she, quicker than he, invariably recognizes the sound of a horse or vehicle crossing the three-plank bridge one-hundred-and-fifty yards from their home; that she can at once recognize any tune played by her Regina Music-Box, even when in an adjacent parlor; and that she very frequently overhears, even at twelve or fourteen feet distance, disputes and conversations, which others believe they have concealed from her by lowering their voices, as they supposed, sufficiently therefor. A year after operation, I learned through her husband and her physician that upon a recent occasion, others observed that she had her attention attracted by the fall of an ordinary brass pin, which dropped from her neckwear, while standing upon her wooden porch at home; and that, upon their asking her whether she had *actually heard* the pin "drop."

or not, she replied, that she had heard it. At that time also, it was reported that the hearing still continued to improve; and that the annoying symptoms—noises in the head and ears, etc.—which had been relieved by the operation, had not returned.

In her reply to a copy of the foregoing report, since sent the patient, she wrote me: "The report you have made of my ears, while under your care, and for years before consulting you, is certainly fine, and so minute in every particular way, that I can not find one flaw in the whole article. My hearing is so much improved now, I feel as though life is worth the living for, etc."

Eight years have now elapsed since the operation was done upon this lady's ears.

(To be continued.)

REPORT OF A CASE OF OVARIAN TUMOR.*

BY ELMO P. PORTERFIELD, M. D., ST. LOUIS, MO.

and

JNO. D. PORTERFIELD, JR., M. D., CAPE GIRARDEAU, MO.

Mrs. V., age forty-eight, German by birth, married at the age of twenty-nine. The mother of five children, two living, three miscarriages. The miscarriages were followed by severe hemorrhages and great weakness. She was confined to her bed three weeks during the last miscarriage, evidently caused by some infection. These miscarriages occurred during the first three years of her married life. As a young girl she was always well and strong, menstruated at the age of fifteen, was always regular, lasting four or five days, never associated with unusual pain.

The present trouble dates back to her last confinement, five years after marriage or fourteen years ago.

A small mass about the size of a dollar appeared in the right side over the region of the ovary, which was painful at times.

This mass made a slow and steady growth, gradually increasing in size; coming up from the right side it finally extended over near the median line and from month to month the growth was perceptible. During the gradual growth there was at times severe pains through the bowels and tumor mass. Numerous attacks of colic and indigestion were among the daily symptoms. The entire abdominal cavity soon became occupied by the tumor; pressing intestines, bladder and other abdominal viscera out of their normal position, causing considerable dyspnea, frequent urination and chronic constipation.

A slight elevation of temperature was noticeable, at times ninety-nine to a hundred, during the days of the growing process, which must have been due to the absorption of toxins produced by constipation. Edema of the vulva and lower extremities was a constant

*Read at the Annual Meeting, Jefferson City, May, 1906.

symptom, after the tumor had reached sufficient size to produce pressure on the blood vessels leaving the pelvis.

She weighed 170 pounds one month after this confinement, but as the tumor increased in size she began to lose weight very rapidly and developed a sallow complexion similar to that of carcinoma. She gradually grew weaker, thinner and depreciated in general health.

One year ago she had typhoid fever which lasted six weeks and during this time was in a critical condition.

About a month after her convalescence from typhoid fever a consultation with their family physician revealed, upon examination, that we had to deal with some form of abdominal tumor.

Inspection revealed a full and distended abdomen, full and rounding showing no point of depression. Smooth surface on both sides, but on palpation, a very distinct notch could be felt over the umbilicus, which resembled the notch of a spleen of malaria, or one undergoing amyloid degeneration. The tumor was movable laterally, to a limited extent. Percussion showed general dullness over the entire mass with the exception of a small area of fluctuation over the central portion. The lateral abdominal regions, or flanks, were tympanitic. There was no change in the area of dullness upon changing the position of the patient, which would be characteristic of ascites.

By pressing the hand firmly against the abdominal wall and gradually bringing it across the tumor, it was noticeable that there was a firmness, or solid resisting mass present. By auscultation nothing of diagnostic significance was revealed. Vaginal examination was made and the firm mass could be felt on both sides, in about the same proportion. The cervix was pale, soft and easily movable and did not show evidence of any connection with the tumor.

Upon introducing a uterine sound it was ascertained that the uterus was of normal depth and the fundus uteri movable.

The examination of the urine did not show any traces of albumen or sugar and was normal in every respect.

The patient was so weak that to operate at once would have proved fatal and she was sent to the hospital. We began a process of nourishing, feeding her all forms of good rich food, milk, eggs, and wine, with the hope that she could be built up strong enough to withstand the surgical shock usually produced in these cases.

Free elimination of bowels and kidneys was produced, small doses of strychnine were given as a tonic and stimulant to the heart. She began to improve, and as time passed on, it was very perceptible that she was gaining more strength.

After having her under preparatory treatment for a month we decided that she was as able as she would ever be to stand the operation. On the morning of August 10th, 1904, she was given the usual preparatory treatment for abdominal section.

The patient was anaesthetised with ether and placed on the table in the Trendelenburg position. A straight laparotomy was performed and upon opening the peritoneal cavity fully a pint of amber colored serous fluid poured out, which was quickly relieved by using large gauze packs.

The parietal peritoneum was highly congested, and inflamed fully six inches around the incision, which with the exudate, was evidence of there having been a localized peritonitis present.

Passing the hand into the abdominal cavity, between the tumor and abdominal wall and carefully bringing it around the mass, several varieties of adhesions were found to be present. Some of them long thin flat bands, evidently old adhesions; some soft, thready, friable and very vascular. The same conditions existed on both sides of the tumor.

The firm long bands were clamped and ligated, the soft friable adhesions were freed by carefully passing the hand around the tumor.

Hemorrhage from adhesions was severe but was controlled by applying hot gauze packs.

An attempt was now made to lift the tumor out of the cavity, but we found that it could not be brought through the incision. A large ovarian trocar and rubber tubing was used, and the trocar placed through what seemed to be, a cystic portion of the tumor, and drew off fully a quart and a half of bloody degenerated fluid.

Not being able to deliver the tumor the incision was enlarged. With a pair of heavy tenaculum forceps we succeeded in getting the tumor out of the cavity, but now came to what seemed to be a more serious complication. A large knuckle of intestine was firmly bound down in the notch, or between the two lobes of the tumor. A part of the attachments was very vascular, and a part was composed of old adhesions. The vascular adhesions were teased off with a gauze sponge and hemorrhage controlled by hot gauze pads. At one point of attachment we were compelled to cut away a small piece of the tumor to prevent injury to the intestines, which later was whipped over with catgut, to prevent any secondary adhesions forming. The tumor was now free from adhesions, and was brought out of the abdominal cavity and covered with towels wrung out of hot salt solution. Ligation and amputation of the pedicle was the next step to be considered. The pedicle being long and thin and the blood vessels being easily located this step of the operation was quite easy. A large clamp was then placed across the base of the pedicle and the ovarian artery ligated. The tumor was cut away and bleeding controlled by ligature. The stump was whipped over with continuous catgut suture. Carefully noticed the stump of the pedicle and finding that safe haemostasis had been secured, proceeded to care for the toilet of the peritoneal cavity.

Having spilled some of the dark, degenerated, grumous, tumor

contents into the peritoneal cavity decided best to flush the peritoneal cavity with hot normal salt solution. The peritoneal cavity and vault of the pelvis was then dried with sponges on long bladed forceps. The peritoneum was then closed with continuous catgut suture, through the muscles and the fascia, and the skin finally brought together with interrupted silk worm gut suture, four to the inch. Plain gauze dressings were applied to the wound and adhesive straps put on to hold the same in place.

The operation was associated with profound shock. Large beads of perspiration stood out on her forehead; hands and feet were cold and clammy, face wore an anxious, pinched expression. Temperature 97, pulse 150, respiration 44, and pupils contracted.

Hot bottles were wrapped and placed around her in bed, hypodermics of strychnine 1-30 was given every three hours. Normal salt solution, temperature of 100 was given subcutaneously on the inner side of both thighs and gently massaged to hasten absorption.

A nutrient enema of hot coffee 4 oz., brandy 1 oz., salt solution 4 oz., was given and retained.

There was quite a decided response to the use of the salt solution: while the pulse was weak and thready it changed in volume and became stronger. Strychnine sulphate 1-30 and calomel 1-10 were given every three hours during the night, and at eight o'clock the next morning the patient was some better. Bowels had moved three times and temperature was 99, pulse full and about 130 per minute. Salt solution, two quarts in amount, was again given subcutaneously, this time being placed underneath the mammary gland, which readily absorbed it.

Many points were under consideration as the treatment for the surgical shock demanded. With such rapid pulse and cold hands and feet it was necessary to remember the possibilities of secondary hemorrhage due to slipping of ligatures of the pedicle, and capillary oozing produced from the raw surfaces of the intestines where the adhesions had been freed. The pulse was watched carefully and as the time passed it seemed to improve in volume, until a pulse rapid, but full and strong was present. This proved to us that there was no hemorrhage and convinced us that surgical shock was the patient's greatest trouble; and all methods of treating shock were held in readiness in case the patient should have any change for the worse.

The next morning to our surprise, we found the patient with a temperature of 101, pulse 140, respiration 43, abdomen was perfectly flat and no tympanites. That evening the temperature went up to 102, pulse rapid and respiration fast. We were very much alarmed about the patient and almost convinced there was some infection and pus formation present, still the symptoms of peritonitis were absent. Abdomen was flat, bowels had moved freely that day and there was no vomiting. About three o'clock that morning temperature went up

to 103, pulse 144, respiration 46. We began to believe there was infection of the peritoneal cavity and that it would only be a short time until general peritonitis would be present. Our first thought was to open her up and put in a glass drainage tube, but we could not bear the idea of opening a flat abdomen for drainage. We thought of the vaginal route but still were a little uneasy about draining by this method. Finally decided to wait until the next morning and the next morning, to our surprise, her temperature was normal and remained that way until her recovery. There was not even a stitch abscess and union was by first intention. The wound healed and the stitches were taken out on the sixth day. The patient remained in the hospital four weeks after the operation and then went home where she gradually increased in strength and weight.

Microscopic Examination.—Several sections were made and all showed the same conditions: Ground substance was fibrous, containing numerous solid cellular cords and arranged in a manner like lymph spaces. The connective tissue was fibrous and followed by lymph vessels and lymph spaces, lined by proliferating epithelioid masses. These cords of cells appeared like cellular cylinders of large diameter or as small strips of two layers of flat cells branching at intervals.

The large endothelial cell masses had numerous lumina containing mucoid material. The cells (endothelial) contained small nuclei and the net-like proliferating endothelial cells were quite prominent.

The conclusions drawn, if done hastily or by one not on the lookout, would very likely diagnose this case as adeno-carcinoma and which in all probability was originally a cyst-adenoma of the left ovary and in the walls of the cyst arose the endothelioma, characterizing this tumor under the head of lymphangio-endothelioma-intravascular malignant.

Endotheliomas have certain distinguishing features that enable us to separate them from other atypical tumors.

The general morphologic characteristics of endothelial tumors as has been outlined by F. Robert Zeits of Chicago, is as follows and coincide with the findings in this case.

- (1) The tumor cells in endothelioma are constantly and intimately connected with the stroma, and cannot be brushed out of the stroma, as is the case in carcinoma in which the epithelial cells may also retract from the stroma and show spaces.

- (2) Endothelial cells produce intercellular cement substance and are closely packed together, whereas the epithelial cells in carcinoma have no intercellular substance and form no compact layers.

- (3) In endothelioma the cell masses consist of a dense mosaic of many layers of cells with small, sharply outlined nuclei, surrounded with a broad envelope of clear glassy perinuclear protoplasm.

Carcinoma cells have large vesicular nuclei, with a moderate amount perinuclear protoplasm, more or less granular.

(4) In endothelioma delicate fibrillar processes extend from the walls of the alveoli into the proliferated endothelial cell masses. These are absent in carcinoma.

(5) In endothelioma the tumors are arranged in the form of cellular cords and cylinders (round masses in the carcinoma), and may separate out hyalin material (cylindroma) or form lumina-like areas (sieve-like) in the cellular cords, due to secretory processes of endothelial cells.

(6) To distinguish the endothelial tumors from sarcomata it is to be remembered that the former have an organoid, the latter a histoid structure. According to this definition every large-cell sarcoma with a well developed stroma, which was formerly called alveolar sarcoma, would be called an endothelioma.

It is also necessary to add that the great length of time that this tumor took to develop (14 years), is also a feature in the diagnosis. There were no metastatic tumors noted at the time of operation. However, we have since been lead to believe they existed, as the patient, though making what apparently seemed a complete recovery, died only a few days ago with what we believe to have been metastatic involvement of the brain. Post-mortem examination denied.

The clinical feature here is of great importance both to the operator and to the patient, as a correct diagnosis gives us the prognosis.

These endothelial tumors do not differ greatly clinically from other malignant growths, except that they are much slower to increase in size and the lymphatics do not become involved till late, the reverse being common in carcinoma.

In conclusion your attention is directed to these points:

(1) Endotheliomas by differing as they do from all other malignant tumors, need be classified as Zeits of Chicago has suggested, to themselves.

(2) They should then be correctly diagnosed as distinct and separate tumors.

(3) The early and correct diagnosis if made before metastasis is produced and neighboring lymph nodes involved is certainly important as cure is then more probable than if the case be either carcinoma or sarcoma.

PRIMARY LIGATION OF THE INTERNAL ILIAC ARTERIES IN HYSTERECTOMY.

BY N. O. HARRELSON, M. D., KANSAS CITY, MO.

Primary ligation of the internal iliac artery, preferably just above the uterine branch, has the advantages of effectually controlling the hemorrhage and aiding in the isolation of the ureter in a pan-hysterectomy. In young subjects, with far advanced cervical cancer and extensive involvement of the broad ligament, the uncontrolled blood supply often renders a thorough operation impracticable. Operators have frequently been compelled to adopt this method in the face of extreme emergencies, which if employed as an initial and elective step would insure advantages very apparent over the procedure as a *dernier resort* and imperative recourse. The friability of the blood vessels and tissues in many malignant conditions renders them very easily cut and torn by the ligatures, necessitating repeated ligations and undue prolongation of the interference. While it might seem hazardous to cut off the nutrition of the numerous parts supplied by the distribution of this vessel, practical experience proves that the abundant collateral circulation in this region adequately compensates the impaired blood supply.

This method may be successfully used in benign as well as malignant growths. The technique of this operation consists of the regulation abdominal incision with the patient in the extreme Trendelenburg position. The abdominal viscera are crowded up toward the diaphragm and retained in position with hot abdominal pads, leaving the pelvis free. The exact position of the external and internal iliacs is ascertained by simultaneous palpation with the middle and index fingers, just below the bifurcation of the common iliac artery. The location of the ureter is also observed at this time. By the use of blunt scissors a longitudinal incision is made in the peritoneum over the internal iliac artery just below the bifurcation of the common iliac. An aneurism needle armed with medium-sized catgut is passed around the vessel and secured. The vessel of course, is not severed at this point. The peritoneal slit is closed with a continuous suture of fine catgut, which being completed the operator may proceed to extirpate the entire uterus and appendages.

I recently had occasion to employ this method in a case of advanced cervical cancer, with the left broad ligament involved. Immediately upon entering the abdomen and clearing the field, I ligated the internal iliacs as described. In the removal of the uterus the method described by Wertheim, as the German-American operation, was largely adhered to. Within thirty-six hours the temperature and pulse were normal, and the bladder and bowels were regular in their functions, followed by a rapid convalescence.

The chief advantage of this method lies in the fact that it gives the operator absolute control of the field, enabling a more thorough removal of the diseased tissues. It is well to bear in mind that the immediate and remote success of the operation depends more especially upon the prevention of an excessive loss of blood than upon the rapidity of the operator.

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EDITORIAL.

NEW MEDICAL LEGISLATION.

To the members of the Missouri State Medical Association:

It might interest you to learn in advance of the formal report by the Committee on Public Policy and Legislation, what has been accomplished by the profession of this state in securing legislation at the hands of the General Assembly, the regular session of which has but recently adjourned.

Thanks to the efforts of the county medical societies, to whom must be accorded the first credit, and thanks to the influential co-operation of the State Board of Health, the Bills fixing preliminary literary requirements and a four years college curriculum as conditions for admission to the examination for a license to practice, was passed, together with a penal clause bringing those practicing without a license under the jurisdiction of the courts. The standard requirements enacted are the minimum requirements of the American Medical Association.

The organized medical profession of this state was also an important factor in securing the passage of the Pure Food law, which was next in importance of the measures enacted.

The measure relating to criminal abortions which makes the crime a felony instead of a misdemeanor, together with a section whereby it is hoped convictions will be more readily secured for this offense, also received the approval of the General Assembly.

Unfortunately the measure whereby county Boards of Health were to be created and which embodied provisions for the gathering of vital statistics, failed of passage in both houses.

The bill limiting the time for bringing actions for alleged malpractice, was reported unfavorably by the Committee on Jurisprudence.

Members will also be glad to learn that the General Assembly placed at the disposal of the State Board of Health such an appropriation as will enable it to conduct the sanitary affairs of the State in a suitable manner.

The citizens of this commonwealth should consider themselves under many obligations to the medical members of the legislature who were untiring in their efforts to secure necessary legislation.

F. J. LUTZ.

Chairman Committee on Public Policy and Legislation.

SEMI-CENTENNIAL.

FIFTIETH ANNUAL MEETING MISSOURI STATE MEDICAL ASSOCIATION.

The next meeting of the State Association is the fiftieth annual meeting—the Semi-Centennial. The occasion should call forth the largest attendance in the history of the Association. Although the Society was founded in 1850 and is therefore in reality 58 years old, we count only fifty meetings since there was a lapse of eight years during the Civil War—from 1859 to 1867—when no meetings were held.

The Committee of Arrangements is exerting special efforts to celebrate the occasion in a fitting manner. All living ex-presidents will attend in a body and unite in commemorating the event.

The excellent scientific program promises many papers of unusual interest and the pathologic exhibit will be a source of instruction and benefit to all who attend the meeting. In our next issue we shall announce the completed program and full arrangements for the celebration of the Semi-Centennial Meeting.

THE PATHOLOGICAL AND ANATOMICAL EXHIBIT.

The Pathological Exhibit will be a feature of unique interest at the next annual meeting. The following exhibits have been promised and to these probably others will be added before the meeting takes place:

1. Exhibit from the Anatomical Department of St. Louis University.
2. Exhibit of early human embryos, specimens and models. By C. M. Jackson, M. D., University of Missouri.
3. Exhibit of Pathologic Ophthalmological specimens. From St. Louis College of Physicians and Surgeons.
4. Exhibit of specimens of Hypernephroma. From Jackson County Medical Society.
5. Exhibit of Plant Pathology. By Dr. Herman von Schrenck.
6. Exhibit of selected specimens. From Barnes Medical College.
7. Comprehensive collection of Carcinoma specimens. From

St. Louis Medical Society.

In addition to the above there will be microscopic demonstrations, lantern slide talks, and a large collection of single specimens of unusual interest.

The address by Dr. Von Schrenck, Consulting Pathologist of the U. S. Department of Agriculture, will be one of rare attractiveness.

DR. ALLEE RESIGNS.

Dr. W. S. Allee, Councillor for the Seventeenth District, has tendered his resignation to the Judicial Council. Dr. Frank DeVilbiss, of Eugene, has been elected to fill the vacancy caused by Dr. Allee's resignation. Dr. Allee leaves his district well organized and we feel confident that the members in the Seventeenth District will be pleased with the selection of Dr. DeVilbiss as his successor.

PAY YOUR DUES.

County secretaries are urged to make prompt remittance to the State Secretary, of dues for members of local county societies, and send a list of the members for whom dues are paid. All dues should be paid by March 31st. It is necessary that these remittances be made promptly so that a complete roster of membership can be made up and all paid up members placed in good standing before the annual meeting.

SECOND EDITION OF THE FRAUD PAMPHLET.

The American Medical Association press has issued a second edition of the fraud pamphlet, containing reprints of all the articles on the Great American Fraud from *Collier's Weekly*. This edition includes the articles on patent medicine, and also the second series of articles by Mr. Adams on Quacks and Quackery. They are the result of a vast amount of personal investigation on the part of Mr. Adams. They clearly and relentlessly expose the ridiculous claims of the quacks and charlatans, who are deluding and duping the public. It is desired to get these pamphlets into the hands of just as many physicians as possible. They are sold in quantities at a nominal figure which barely covers cost. Many county societies have ordered sufficient quantities for distribution to their members. The pamphlets can be secured in any quantity from the American Medical Association Press, 103 Dearborn Ave. Chicago, Ill.

SPECIAL TRAIN TO ATLANTIC CITY.

Those who contemplate attending the meeting of the American Medical Association, in Atlantic City, June 4 to 8, are invited to join the Missouri Valley party now being organized.

The special will leave St. Louis June 1. at noon, over the Big Four and C. & O. via Indianapolis and Cincinnati, through the picturesque resort region of the Virginias, stopping at Hot Springs and White Sulphur Springs, and visiting the Jamestown exposition.

This train will be superbly equipped with Pullman parlor sleepers and diners, and will reach Atlantic City Monday morning, thus affording ample time for registering and attending auxiliary meetings before the opening of the A. M. A. on Tuesday.

Special through cars will leave Omaha (via Wabash) St. Joseph and Kansas City (via Mo. Pac.) May 31 (evening) and reservations should be made early. Full information and itinerary obtained by addressing the Secretary, Dr. Chas. Wood Fassett, St. Joseph, Mo.

PHYSICIANS' PRESCRIPTIONS AND THE NATIONAL PURE FOOD LAW.

A press dispatch from Washington has the following to say regarding the violation of the National Pure Food Law by physicians: "Physicians whose practice takes them back and forth over State or territorial lines may be surprised to know that each day they are violating, many of them, the Federal pure-food law.

A decision just made by the legal advisors of the Department of Agriculture holds that a physician cannot lawfully send or ship across a State line a package of medicine of his own compounding, unless there is a label on the package bearing the information which is specifically called for by law. He can, however, carry the package across the line himself, without reference whether it is properly labeled, as can also the patient or a member of the patient's household. But the package in the latter instance, must not be subject to sale.

In view of this decision, a physician may carry a package of medicine across a State line if he is traveling on a train, or by any other mode of transportation, without it bearing the pure-food label, but should it be too heavy for him to carry, or should he decide for any other reason to send it by express, even though he is on the same train, the law is violated if it is not labeled. The first transaction is not considered one of interstate commerce.

The same law applies to druggists, compounders and their agents."

ALUMNI OF RUSH MEDICAL COLLEGE.

Missouri members of Rush Medical College alumni will meet at a banquet at Jefferson City on Wednesday night, May 15th.

All Rush graduates in Missouri are requested to attend.

OBITUARY.

Dr. William Drechsler of St. Louis died at his home on February 1st, aged 77 years. Dr. Drechsler was born in Clausthal, Germany, in 1829. He graduated in medicine from the Medical Department of the old St. Louis University (sometimes called Pope's College) in 1853. He was field surgeon in the Union Army during the early part of the Civil War and later was placed in charge of McDowell's Medical College building which was used as a war prison by the Government.

Besides his wife and two daughters he is survived by his son, Dr. Louis Drechsler, of St. Louis.

DR. W. C. GLASGOW.

Dr. William Cass Glasgow, one of the older physicians of St. Louis, died suddenly on March 22nd. Dr. Glasgow was a St. Louisan by birth and education, though he graduated in medicine at the University of Vienna as well as at the St. Louis Medical College. He had held the chairs of clinical medicine and laryngology at Washington University, and had also been consulting physician to the City Hospital and the Martha Parsons Hospital for children. He was an ex-president of the American Laryngological Society. Dr. Glasgow was in his sixty-third year, having been born in January, 1845. He leaves a widow, four sons, and one daughter.

Next Annual Meeting, Jefferson City, May 14, 15, 16, 1907.

PRELIMINARY PROGRAM.

W. S. Allee, M. D.	Olean
"Duty of the Practitioner in Tuberculosis."	
J. M. Allen, M. D.	Liberty
"Tuberculosis a Communicable Disease."	
James Moores Ball, M. D.	St. Louis
"The Surgical Treatment of Glaucoma"	
Willard Bartlett, M. D.	St. Louis
"Personal Experiences in the Removal of Ureteral Calculi"	
Robert Barclay, M. D.	St. Louis
"Relief of Obstinate Deafness of Chronic Middle Ear Disease."	
W. M. Bayliss, M. D.	Columbia
"The State Sanitarium."	
G. A. Beedle, M. D.	Kansas City
"Carcinoma of the Breast."	
T. L. Bradley, M. D.	Warrensburg
"Let Us Get Closer to the People."	
O. H. Brown, M. D.	St. Louis
"Treatment of Pneumonia."	
J. D. Brummall, M. D.	Salisbury
"Let Us Get Closer to the People."	
J. Robert Buchanan, M. D.	Nevada
"Some Reflections Concerning the General Practitioner."	
A. B. Burgwin, M. D.	Fayette
"The Duty of the Examining Surgeon for Life Insurance Companies."	
R. D. Carman, M. D.	St. Louis
"The Value of the Roentgen Rays in the Diagnosis of Renal and Ureteral Calculi."	
W. H. Coffey, M. D.	Kansas City
"Congenital Malformation of the Rectum; Report of Cases."	
H. S. Crawford, M. D.	Harrisonville
"Attitude of the Public Toward the Doctor."	
R. O. Cross, M. D.	Kansas City
"Consumption and Civilization."	
L. J. Dandurant, M. D.	St. Joseph
"Large Aneurysm in Scarpa's Triangle; Conditions of Patient Eighteen Months After Ligature of Femoral Artery."	
W. B. Deffenbaugh, M. D.	St. Joseph
Title not announced.	
H. E. Derwent, M. D.	Clinton
"The Eye and the Nervous System."	
F. Devilbiss, M. D.	Spring Garden
"Local Medical Organization."	
Walter B. Dorsett, M. D.	St. Louis
Title not announced.	
T. H. Doyle, M. D.	St. Louis
"Have We Any Infallible Signs, Symptoms or Methods by Which We Can Diagnose Typhoid Fever Earlier Than the End of the First Week?"	
H. E. Dunlop, M. D.	Canton
"Medical Education; Preliminary and Professional."	
Uterine Fibroids.	

- Wm. Frick, M. D. Kansas City
 "Some Forms of Scabies Seen in Private Practice."
- F. W. Froeling, M. D. Kansas City
 "Blood Pressure and its Relation to Disease."
- C. A. Good, M. D. St. Joseph
 "Pulmonary Hemorrhage"
- C. E. Fulton, M. D. Springfield
 "The Surgical Treatment of Enlarged Prostate."
- C. G. Geiger, M. D. St. Joseph
 "Inguinal Hernia."
- O. G. Gleaves, M. D. St. Joseph
 "The Neglected Side of the Profession."
- John Green, Jr., M. D. St. Louis
 "A Plea for the Cross-Eyed Child."
- R. H. Goodier, M. D. Hannibal
 Title not announced.
- C. B. Hardin, M. D. Kansas City
 "What We Have and What We Should Have of Medical Law Governing the Practice of Medicine."
- R. D. Haire, M. D. Clinton
 "Local Anesthesia."
- James Hanks, M. D. Brashear
 "Autointoxication."
- Geo. Homan, M. D. St. Louis
 "Sanitation and Tuberculosis."
- W. U. Kennedy, M. D. St. Louis
 "Cholecystectomy vs. Cholecystotomy."
- C. C. Leeper, M. D. Braymer
 Title not announced.
- P. I. Leonard, M. D. St. Joseph
 "The Tonsillar Ring as an Etiological Factor in Diseases of the Ear, Nose and Throat."
- T. F. Lockwood, M. D. Bulter
 "Medical Scraps."
- J. C. Mathews, M. D. Springfield
 "The Art of Prescribing."
- A. H. Meisenbach, M. D. St. Louis
 "A Protest Against the Use of Taxis in Strangulated Hernia."
- W. J. McGill, M. D. St. Joseph
 "Stricture of the Rectum."
- Herman E. Pearse, M. D. Kansas City
 "Report of a Case of Aneurysm of the Subclavian: Ligature in the First Portion: Recovery."
- T. E. Potter, M. D. St. Joseph
 "The Omentum as a Surgical Factor."
- William Porter, M. D. St. Louis
 "Civic Responsibilities."
- John Punton, M. D. Kansas City
 "A Plea for the State Care of Nervous Individuals."
- Francis Reder, M. D. St. Louis
 "Malignant Disease of the Rectum."
- S. H. Redmon, M. D. Tipton
 "Milk."
- Louis T. Riesmeyer, M. D. St. Louis
 "The Effect of Surgical Operation on Diabetic Patients."

C. F. Roberts, M. D.	Kansas City
"A Few Points Relative to Prostatectomy."	
J. D. Seba, M. D.	Bland
"Tubercular Peritonitis."	
J. N. Scott, M. D.	Kansas City
"Present States of X-Ray Treatment of Malignant Growths."	
Jas W. Smith, M. D.	Richmond.
Title not announced.	
L. A. Todd, M. D.	St. Joseph
"Post-Operative Accidents and Sequelæ."	
L. M. Warfield, M. D.	St. Louis
"Early Diagnosis of Tuberculosis."	
R. Winn, M. D.	Ilasco
Title not announced.	

DELEGATES.

COUNTY.	NAME	ADDRESS
Adair	Jas. Hanks.	Brashear
Andrew	E. C. Bennett.	Bolckow.
Barton	T. H. Duckett.	Milford.
Bates	T. C. Boulware.	Butler.
Benton	M. Dillon	Fairfield.
Boone	Woodson Moss.	Columbia.
Caldwell	W. L. Lindley.	Hamilton.
Callaway	J. F. Harrison.	Fulton.
Cape Girardeau	G. W. Vineyard.	Jackson.
Cass	J. S. Triplett.	Harrisonville
Cedar	R. O. Crawford.	Eldorado Springs
Chariton	Oliver McEwen	Shannondale.
Clay	H. Rowell	Kearney.
Clinton	J. A. Franklin.	Cameron.
Cole	J. L. Thorpe.	Jefferson City.
Cooper	R. L. Evans.	Boonville.
Daviess	H. E. Songer.	Jamesport.
DeKalb	(Not yet elected)	
Gasconade-Maries-Osage	J. J. Ferrell.	Owensville.
Grundy	J. A. Asher.	Trenton.
Henry	J. R. Hampton.	Clinton Ford.
Holt	C. L. Evans.	Oregon.
Howard	C. O. Lewis.	Fayette
Howell	J. W. Gingham.	Potterville.
Jackson	F. E. Murphy.	Kansas City.
	J. M. Frankenburger.	Kansas City.
	R. T. Sloan.	Kansas City.
	Eugene Carbaugh.	Kansas City.
	J. L. Kanoky.	Kansas City.
	A. H. Cordier.	Kansas City.
Johnson	N. P. Wood.	Independence
	L. F. Murray.	Holden
	R. A. Wilsey.	Hurdland.
Lafayette	W. A. Braecklein.	Higginsville.
Lawrence-Stone	C. A. Moore.	Aurora.
Lewis	H. E. Dunlap.	Canton.
Linn	J. P. Oven.	Brookfield.

Marion	Thos. Chowning.....	Hannibal.
Mississippi	A. W. Chapman.....	Charleston.
Moniteau	W. R. Patterson.....	Tipton.
Newton	R. C. Lamson	Neosho.
Nodaway	F. R. Anthony.....	Maryville.
Phelps	F. L. Baysinger.....	Rolla.
Pike	D. M. Pearson.....	Louisiana.
Platte	S. Redman.....	Platte City.
Putnam	J. A. Townsend	Unionville.
Ralls	W. T. Waters.....	New London.
Ray	R. L. Hamilton.....	Richmond.
Schuyler	J. D. Bridges.....	Downing.
Scott	(Not yet elected).....	
Shannon	P. D. Gum.....	Birchtree.
St. Francois	F. L. Keith.....	Flat River.
St. Genevieve	(Not yet elected).....	
St. Louis	W. H. Townsend.....	Maplewood.
	Paul Y. Tupper.....	St. Louis.
	J. C. Morfit.....	St. Louis.
	Jesse S. Myer.....	St. Louis.
	Wm. W. Graves.....	St. Louis.
St. Louis City.....	John Green, Jr.....	St. Louis.
	W. H. Stauffer	St. Louis.
	W. H. Clopton.....	St. Louis.
	F. L. Henderson.....	St. Louis.
	H. W. Soper.....	St. Louis.
Warren	(Not yet elected).....	
Worth	W. E. McKinley.....	Denver.

The above represents the list of Delegates reported to date of going to press. We urge those Counties not represented in the above list to elect their delegates as soon as possible and forward the name and address of the delegate to the State Secretary.

COUNTY SOCIETY NOTES

ADAIR COUNTY MEDICAL SOCIETY.

The Adair County Medical Society met in Kirksville March 7th, 1907. Six members were present. Dr. Jurgens was unable to attend but sent his paper entitled "What is it That Makes So Many Physicians Poor Practitioners." It was thoroughly prepared and discussed.

The next meeting will be April 4, 1907.—E. C. GRIM, Secretary.

ANDREW COUNTY MEDICAL SOCIETY.

Dr. W. T. Elam, Councilor of the Seventh District, visited Savannah on March 26th, and reorganized the Andrew County Medical Society, with an enrollment of fifteen members. Officers were elected as follows: President, Dr. E. C. Bennett, Bolckow; vice-presidents, Drs. Jno. Hoshier, Rosendale; S. S. Bever, Amazonia; E. H. Carpenter, Helena; W. C. Myers, Savannah; secretary and treasurer, Dr. C. O. Jeffries, Savannah; delegate, Dr. E. C. Bennett; alternate, Dr. D. B. Bryant. The next meeting will be held in Savannah on April 23d, when a number of additional members will be added to the roll.

CASS COUNTY MEDICAL SOCIETY.

March 7th was our regular meeting day and with one exception probably the largest number attended since our organization. Every one on the program was ready with a paper worthy the time and efforts of any set of medical men in Missouri.

F. B. Ellis of Garden City read a splendid paper on "Phases of Eye Work Essential to the General Practician."

M. P. Overholser handled "The Circulatory System" in an elementary manner taking us back to college days and much refreshing our memories concerning the relationship between blood pressure, heart muscle and the vaso-motor nerves.

D. W. Conger of Harrisonville presented the medico-legal side of the question of "Caesarean Section versus Craniotomy." Although being the second year of the Doctor's practice in the profession he showed an able handling of this subject much to his credit and the delight of his older colleagues.

H. S. Crawford was well pleased at the reception given his paper entitled, "Attitude of the Public Toward the Doctor." He feels grateful to the society for the valuable pointers given in the discussion. Dr. Crawford will represent Cass County at Jefferson City May 14th, 15th and 16th.

Those entering into the discussions were Doctors G. M. Anderson, D. W. Conger, W. F. Chaffin, H. S. Crawford, F. B. Ellis A. R. Elder, H. Jerard, G. W. Farrow, Mart Hammond, M. P. Overholser and J. S. Triplett.

The Society voted to hold its next meeting in Pleasant Hill, May 2, 1907.—W. F. CHAFFIN, Reporter.

GREENE COUNTY MEDICAL SOCIETY.

MEETING OF FEBRUARY 22ND.

Doctors A. Armstrong, F. B. Fuson, N. C. Williams, A. F. Willier of Springfield and E. E. Evans of Bois Daro, Mo., were elected to membership in the society. Dr. Matthews made an interesting talk on what the Committee on Public Health and Legislation could do: a general discussion ensued and each member was asked to gather all the evidence he could about illegal practitioners of medicine and turn it over to this committee. The society voted to hold an open session and a committee was appointed to arrange for this.

Dr. N. F. Terry read a paper on the "Relation of Pelvic Diseases to Insanity." He said in part: "It is a fact that intimate relations exist between the pelvic organs and certain mental conditions, but we will only consider those in which definite organic disease exists in the pelvic organs. Here as in other diseased conditions it affects the brain only as it causes faulty nutrition thereby causing cerebral anemia which may cause the insanity. The most important literature on this subject has been written within the last 40 years and does not usually advise operations unless a known pathological condition effecting the general health exists; early operations produce the best results but the surgical treatment of insane women is too much in its infancy to permit the drawing of conclusions; still we may say that a large per cent. of insane women have pelvic diseases which in some instances affect the general health and thus contribute to the mental condition. Insane women bear surgical operations well without making their insanity worse and in most instances their diseases are neglected. In these cases the general practitioner must make an early diagnosis and remedy the trouble to obtain the best results."

MEETING OF MARCH 8TH.

The Committee on Open Session decided on April 26th for the date of the meeting and to have a paper on "Hygiene in the Public Schools" by some educator or teacher; and one on "Public Sanitation" by some member of the Society. Discussions to be limited.

Dr. E. L. Evans read a paper on "Diphtheria and its Treatment." He said in part:

"Diphtheria has prevailed since about 460 B. C. The oldest recorded description of it was about A. D. 100. Bretonneau, of France, named it in 1881; the bacillus was described in 1883-4. The

disease is due to the presence of the Klebs-Loeffler bacillus, is first local and then systemic; it occurs at any age and may occur more than once in the same patient; the time from exposure to first symptoms may be from 24 hours to 12 days; the symptoms vary greatly from a slight indisposition to the gravest of symptoms; the parents usually first notice a slight laryngeal obstruction, the pulse is usually rapid, the temperature is not usually high unless there are complications, the differential diagnosis is not usually hard to make owing to the characteristic membrane in diphtheria; albumen is nearly always present. Antitoxin serum was first used in 1893 and its use has reduced the mortality about fifty per cent.; this shows that it is a lack of knowledge not to use it when it can be obtained. It only neutralizes the toxine and supporting treatment must be added to proper nutrition. Keep the patient quiet and allow plenty of fresh air, cleanliness and sunshine. If the attack is severe stimulants are necessary and good brandy is the best.

In medical treatment he inclined to the germicidal and eliminative measures as calomel benzoate of sodium and peroxide of hydrogen, the sodium in 15 grain doses, the peroxide of hydrogen full strength applied often with a swab; antitoxin should be given early and liberally; a few large doses in the onset is almost certain to arrest the disease and in nasal and laryngeal diphtheria particularly large doses. Exposed persons should receive a moderate dose, at least 1,000 units.

He believed in giving 4,000 units at first and repeat in 3 or 4 hours according to the severity of the case as the effect soon wears off, but if the case is very malignant, or laryngeal, and seen late, he would give 6,000 to 8,000 units at the first dose and repeat every 2 to 4 hours according to the results produced.

In the discussion Dr. Fulton spoke about the prophylactic treatment and that the germ stays in the throat for quite a while. Dr. Hill spoke of how localities and seasons effect the disease and advised strychnine as a stimulant. Doctors Woody, Smith, Farnsworth and Purselley also discussed the paper.—O. L. ORMSBEE, Secretary.

HENRY COUNTY MEDICAL SOCIETY.

The regular session was held at Clinton on March 13th. Dr. W. M. Shankland read the history of a case of injury to left leg with attending pain of right leg and foot, phlebitis supervening in both legs.

Dr. R. D. Haire related the case of a school boy, 10 years old, who in play was thrown down, other boys falling on him. The patient attended school for about two weeks afterwards when pain in the thigh came on without other known cause, in time of school, and was so severe that he had to be carried home. Pain located in mid-

dle third of thigh, some at the knee; extending limb by the hands gave some relief.

Dr. J. H. Britts reported that the Hospital Committee had not come to any definite conclusion and on motion of Dr. Russell was given more time.

The officers elected at the December meeting were B. B. Barr, president; J. G. Beaty, vice president; F. M. Douglass, secretary and treasurer; J. R. Hampton, delegate.—F. M. DOUGLASS, Reporter.

HOWARD COUNTY MEDICAL SOCIETY.

The regular meeting held at Fayette on March 1st was not as largely attended as usual owing to bad weather. However seven members were present.

Dr. Richard presented a case of gonorrhoea in a girl four years of age. The hymen had been torn and the parts were otherwise lacerated. Dr. Richard also presented a case of specific iritis in a child.

Dr. Watts presented a case of diabetes.

On motion the Chair appointed a Committee to arrange for the entertainment of invited guests of the society at the public meeting to be held on April 5th, consisting of the following members: Doctors Richards, Meyer and Smith. On motion the chairman was made a member of this Committee.—C. W. WATTS, Secretary.

JOHNSON COUNTY MEDICAL SOCIETY.

The regular session met at Warrensburg March 12th, 1907, and the regular business was transacted as usual. Four applications recommended by the Board of Censors were approved and the applicants elected:—Doctors Simpson of Holden, Zoll of Warrensburg, Geo. W. Adams, Fayetteville and Pare of Luton.

The Society decided to hold their annual banquet on or near the date of next regular meeting of the society and directed the executive committee to prepare for same on the lines as last year.

The scientific program consisted of two excellent papers; one by Dr. E. A. Graves of Kingsville, Mo., on the "Treatment of Lobar Pneumonia;" the other on "Some Pathological Conditions Found in Diseased Accessory Nasal Sinuses."

These papers were discussed freely by nearly all members present, bringing out a variety of opinions and experiences which held much of instruction and edification for the members.—E. H. GILBERT, Reporter.

NODAWAY COUNTY MEDICAL SOCIETY.

The regular monthly meeting was held at Maryville on March 12th. A large number of members were present and the following visitors:—Doctors C. H. Wallace, T. E. Potter, O. B. Campbell, W. T.

Elam, Jacob Geiger, C. W. Fassett, P. I. Leonard, St. Joseph, D. J. Hunterson, Parnell, F. M. Martin, Maryville, C. W. Kirk, Hopkins, and Wm. Wallis, Jr., Maryville. The following interesting program was carried out:—

Medical Organization.....Dr. Chas Wood Fassett, St. Joseph
 Medical Organization..Dr. W. T. Elam, District Councilor, St. Louis
 Specialism.....Dr. P. I. Leonard, St. Joseph
 The Omentum as a Surgical Factor.....Dr. T. E. Potter, St. Joseph
 Fractures of the Upper End of the Femur.....Dr. Jacob Geiger,
 St. Joseph.

The Early Recognition of Cancer of the Uterus

.....Dr. O. B. Campbell, St. Joseph

The papers by the visiting physicians from St. Joseph were of great interest to the members and brought out a full discussion.

The following new members were elected:—Doctors M. Carter, Burlington Junction; F. M. Martin, Maryville; C. G. Dean and M. A. Gaugh of Burlington Junction; F. A. Lee, Skidmore; C. W. Kirk, Hopkins.—H. L. SAYLOR, Secretary.

RAY COUNTY MEDICAL SOCIETY.

The Ray County Medical Society held its regular meeting on January 17th at Richmond.

Dr. H. S. Major read a paper on "Cerebro-spinal Meningitis."

Dr. R. L. Hamilton was elected delegate to the annual meeting at Jefferson City. Dr. Jas. W. Smith was appointed to read a paper before the State Association.—C. C. CROWLEY, Secretary.

STODDARD COUNTY MEDICAL SOCIETY.

The regular bi-monthly meeting was held at Bloomfield on March 6th. The morning session was devoted to miscellaneous business, after which the members adjourned to the Barrett Hotel where the local members had prepared for the entertainment of the members and guests.

AFTERNOON SESSION.

At 2 p. m. the Society reconvened.

Doctors Allen and Wingo reported a very interesting case of bone resection in a compound comminuted fracture of the tibia that had become infected from lack of proper care of the initial wound. Dr. T. C. Allen reported two cases of thrombosis.

H. S. Shaw, Esq., prepared a paper with the title "The Doctor as a Witness," but as he was unable to attend the meeting, his paper was read by Dr. Ed. Moore. The discussion following the reading of this paper was very interesting, and brought out many valuable points.

A symposium on "Alkaloidal Medication" was presented by Doctors Ashley and Vernon. The points brought out in the discus-

sion were:—That alkaloidal medication is not an ism, pathy, exclusive system, a specialty, or dogma, but simply carrying out what was begun in 1816-1820, when morphine, strychnine, brucine and quinine, were isolated and their use begun, instead of opium, nux vomica, and cinchona bark; neither are these agents advocated to be used to the exclusion of other established remedies. They are deserving of more careful study and clinical use than has been given them, but not to the exclusion of any other good and proven remedy.

The next meeting of the Society will be held at Advance the first Wednesday in May.—Geo W. VERNON, Reporter.

ST. LOUIS COUNTY MEDICAL SOCIETY.

The St. Louis County Medical Society met March 13th at Kirkwood with fifteen members present.

Dr. C. A. Dunnivant reported a case of persistent sciatica, which had not improved under usual therapy.

Dr. H. G. Wyer reported a case of sciatica of five years' duration, all forms of treatment unsuccessful, electricity seemed to aid slightly. He also reported a case of appendicitis with unusual symptoms considering the pathological condition found at operation. Specimen of appendix with adherent omental mass was presented.

Dr. N. E. Metcalfe read an interesting paper "The Digitalis Group."

Dr. P. M. Brossard read a fine paper, entitled "Rheumatoid Conditions." These papers were ably discussed.

The program promised for April is as follows:

1. The Modern View of Immunity, by R. D. Moore.
2. The Present State of Serum Therapy, by R. C. Forsyth.

Doctors R. Bracy, of Wellston, and Charles Zuppann, of Ballwin, were elected to membership.—R. D. MOORE, Reporter.

BOOK REVIEWS

PSYCHOLOGY APPLIED TO MEDICINE. Introductory studies by David W. Wells, M. D. Lecturer on Mental Physiology, and Assistant in Ophthalmology, Boston University Medical School; Ophthalmic Surgeon, Massachusetts Homeopathic Hospital, Boston; Oculist, Newton (Mass.) Hospital. Illustrated, nearly 200 pages, with Bibliography and Index. 12mo. Extra Quality Paper. Neatly Bound in Cloth. Price, \$1.50 Net. F. A. Davis Co., Publishers, 1914 Cherry St., Philadelphia, Pa.

The present essay has developed as a result of several years' lecturing to medical students, and is based on a practical knowledge of their needs.

The leading features of the book are:—1. A clear statement of the important facts of medical psychology. This material occupies the first few chapters. 2. Hypnotism (its history, methods of induction, and theories concerning it) is treated in three chapters. This is a valuable resume of the present status of the subject, together with the account of considerable original experimentation. Its value and place in the practice of medicine are carefully considered. 3. Mental healing in its many forms occupies the three remaining chapters. An attempt is made to find the underlying therapeutic principle, which is so generally obscured by the false notions and extravagant claims of the various sects. The book concludes with a critical examination of the prevalence of a psychic element in all forms of modern medical methods.

OPERATIVE GYNECOLOGY. By Howard A. Kelly. Professor of Gynecological Surgery in the Johns Hopkins University, and Gynecologist to the Johns Hopkins Hospital, etc, etc. With 11 plates and 703 original illustrations for the most part by Max Broedel. Second revised and enlarged edition in two volumes. New York. D. Appleton and Co. 1906.

It is now nine years since the first edition of this excellent work has appeared and it seemed necessary to undertake such a revision as will satisfactorily present certain important changes in the field of surgery. Thus many improvements are notable, especially in the first volume. For the benefit of the general practitioner new chapters have been added dealing with local and palliative treatment, with the use of the pessary, with menstruation and its anomalies and other subjects of practical importance. Dr. Geo. Gellhorn of St. Louis has supplied a chapter on the Diseases of the Hymen. As a whole this, probably the most popular textbook on gynecology, in its new appearance very creditably reflects the present status of the practice of gynecology in this country.